

## SUNSHINE AND CLOUDINESS.

The distribution of sunshine is graphically shown on Chart VII, and the numerical values of average daylight cloudiness, both for individual stations and by geographical districts, appear in Table I.

The averages for the various districts, with departures from the normal, are shown in the table below:

Average cloudiness and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
New England .....	5.9	+ 0.1	Missouri Valley .....	6.4	+ 1.3
Middle Atlantic .....	6.2	+ 0.8	Northern Slope .....	5.6	- 1.0
South Atlantic .....	5.2	+ 0.5	Middle Slope .....	5.0	- 1.0
Florida Peninsula .....	3.7	- 0.9	Southern Slope .....	4.6	+ 0.2
East Gulf .....	5.8	+ 0.6	Southern Plateau .....	3.5	- 0.5
West Gulf .....	5.7	+ 0.4	Middle Plateau .....	4.8	- 0.8
Ohio Valley and Tennessee .....	7.5	+ 1.4	Northern Plateau .....	7.6	- 0.5
Lower Lake .....	8.1	+ 0.5	North Pacific .....	8.4	- 1.1
Upper Lake .....	7.7	+ 0.6	Middle Pacific .....	5.8	- 0.4
North Dakota .....	4.8	- 0.4	South Pacific .....	4.4	- 0.0
Upper Mississippi Valley .....	6.8	+ 1.1			

## DESCRIPTION OF TABLES AND CHARTS.

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Table I gives, for about 145 Weather Bureau stations making two observations daily and for about 25 others making only one observation, the data ordinarily needed for climatological studies, viz, the monthly mean pressure, the monthly means and extremes of temperature, the average conditions as to moisture, cloudiness, movement of the wind, and the departures from normals in the case of pressure, temperature, and precipitation, the total depth of snowfall, and the mean wet-bulb temperatures. The altitudes of the instruments above ground are also given.

Table II gives, for about 2,700 stations occupied by voluntary observers, the highest maximum and the lowest minimum temperatures, the mean temperature deduced from the average of all the daily maxima and minima, or other readings, as indicated by the numeral following the name of the station, the total monthly precipitation, and the total depth in inches of any snow that may have fallen. When the spaces in the snow column are left blank it indicates that no snow has fallen, but when it is possible that there may have been snow of which no record has been made, that fact is indicated by leaders, thus (....).

Table III gives, for all stations that make observations at 8 a. m. and 8 p. m., the four component directions and the resultant directions based on these two observations only and without considering the velocity of the wind. The total movement for the whole month, as read from the dial of the Robinson anemometer, is given for each station in Table I. By adding the four components for the stations comprised in any geographical division the average resultant direction for that division can be obtained.

Table IV gives the total number of stations in each State from which meteorological reports of any kind have been received, and the number of such stations reporting thunderstorms (T) and auroras (A) on each day of the current month.

Table V gives a record of rains whose intensity at some period of the storm's continuance equaled or exceeded the following rates:

Duration, minutes.....	5	10	15	20	25	30	35	40	45	50	60	80	100	120
Rates per hour (ins.).....	3.00	1.80	1.40	1.20	1.08	1.00	0.94	0.90	0.86	0.84	0.75	0.60	0.54	0.50

In the northern part of the United States, especially in the colder months of the year, rains of the intensities shown in the above table seldom occur. In all cases where no storm of sufficient intensity to entitle it to a place in the full table

## ATMOSPHERIC ELECTRICITY.

Numerical statistics relative to auroras and thunderstorms are given in Table IV, which shows the number of stations from which meteorological reports were received, and the number of such stations reporting thunderstorms (T) and auroras (A) in each State and on each day of the month, respectively.

*Thunderstorms.*—Reports of 386 thunderstorms were received during the current month as against 336 in 1901 and 481 during the preceding month.

The dates on which the number of reports of thunderstorms for the whole country was most numerous were: 15th, 61; 12th, 58; 20th, 37.

Reports were most numerous from: Louisiana, 45; Missouri, 39; Arkansas, 31.

*Auroras.*—The evenings on which bright moonlight must have interfered with observations of faint auroras are assumed to be the four preceding and following the date of full moon, viz: 10th to 18th.

*In Canada:* No thunderstorms were reported. An aurora was observed at Minnedosa on the 23d.

has occurred, the greatest rainfall of any single storm has been given, also the greatest hourly fall during that storm.

Table VI gives, for about 30 stations furnished by the Canadian Meteorological Service, Prof. R. F. Stupart, director, the means of pressure and temperature, total precipitation and depth of snowfall, and the respective departures from normal values, except in the case of snowfall.

Table VII gives the heights of rivers referred to zeros of gages; it is prepared by the Forecast Division.

## NOTES EXPLANATORY OF THE CHARTS.

Chart I, tracks of centers of high areas, and Chart II, tracks of centers of low areas, are constructed in the same way. The Roman numerals show number and chronological order of highs (Chart I) and lows (Chart II). The figures within the circles show the days of the month; the letters a and p indicate, respectively, the observations at 8 a. m. and 8 p. m., seventy-fifth meridian time. Within each circle is also given (Chart I) the highest barometric reading and (Chart II) the lowest barometric reading at or near the center at that time, and in both cases as reduced to sea level and standard gravity.

Chart III.—Total precipitation. The scale of shades showing the depth of rainfall is given on the chart itself. For isolated stations the rainfall is given in inches and tenths, when appreciable; otherwise, a "trace" is indicated by a capital T, and no rain at all by 0.0.

Chart IV.—Sea-level pressure and resultant surface winds. The pressures have been reduced to sea level and standard gravity by the method fully described by Prof. Frank H. Bigelow on pages 13-16 of the REVIEW for January, 1902. The pressures have also been further reduced to the mean of the twenty-four hours by the application of a suitable correction, to the mean of the 8 a. m. and 8 p. m. readings, at stations taking two observations daily, and to the 8 a. m. or 8 p. m. observation, respectively, at stations taking but a single observation. The diurnal corrections so applied will be found in Table 27, Volume II, Annual Report of the Chief of Weather Bureau, 1900-1901, pp. 140-164.

The isotherms on the sea-level plane have been constructed by means of the data summarized in chapter 8 of Professor Bigelow's Report on the Barometry of the United States and Canada, which can be found in the Annual Report of the Chief

of the Weather Bureau for 1900-1901, Volume II. The correction  $t_0 - t$ , temperature on the sea-level plane minus the station temperature, by Table 48 of the Barometry Report, is added to the observed surface temperature to obtain the adopted sea-level temperature. On account of excessive local abnormalities of temperature in the great California Valley, between the Coast Range and the Sierra Nevada Mountains, the stations in that valley have been ignored in drawing the lines of equal temperature.

The wind directions are the computed resultants of observations at 8 a. m. and 8 p. m. daily. The resultant duration is shown by figures attached to each arrow.

Chart V.—Hydrographs for seven principal rivers of the United States, prepared by the Forecast Division.

Chart VI.—Surface temperatures; maximum, minimum, and mean of these. Lines of equal monthly mean temperature in

red; lines of equal maximum temperature in black; and lines of equal minimum temperature (dotted) also in black.

Chart VII.—Percentage of sunshine. The average cloudiness at each Weather Bureau station is determined by numerous personal observations during the day. The difference between the observed cloudiness and 100, it is assumed, represents the percentage of sunshine, and the values thus obtained have been used in preparing Chart VII.

Chart VIII.—West Indian monthly isobars, isotherms, and resultant winds, constructed as on Charts IV and VI.

Chart IX.—The total snowfall. This is based on the reports from regular and voluntary observers, and shows the depth of the snowfall during the month in inches. In general, the depth is shown by lines inclosing areas of equal snowfall, but in special cases figures are also given.

Chart X.—Snow on ground at end of month.

TABLE I.—Climatological data for Weather Bureau Stations, December, 1902.

Stations.	Elevation of instruments.		Pressure, in inches.		Temperature of the air, in degrees Fahrenheit.						Precipitation, in inches.		Wind.																
	Barometer above sea level, feet.	Thermometers above ground.	Sea level, reduced to mean of 24 hours.	Departure from normal.	Mean max. + mean min. + 2.	Departure from normal.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.	Mean wet thermometer.	Total.	Departure from normal.	Lays with .01, or more.	Total movement, miles.	Prevailing direction.	Miles per hour.	Maximum velocity.									
	Anemometer above ground.	Actual, reduced to mean of 24 hrs.										Mean temperature of the dew-point.					Date.	Clear days.	Cloudy days.	Average cloudiness, tenths.	Total snowfall.								
New England.																													
Eastport.	76	69	74	29.92	30.01	+.03	26.5	-3.5	52	32	30	-15	9	14	40	21	17	77	5.77	+.2.2	11,281	n.w.	54	26	10	6	15	5.9	24.3
Portland, Me.	103	81	117	29.91	30.05	+.02	23.4	-4.0	51	32	31	-14	9	16	33	20	15	74	5.51	+.3.0	8,255	n.w.	40	22	11	6	11	5.5	23.8
Concord.	298	70	73	29.72	30.06	+.00	22.0	-5.8	43	22	31	-12	9	13	45	21	17	79	5.87	+.2.6	4,456	n.w.	28	8	12	7	11	5.1	26.6
Northfield.	876	16	85	29.08	30.08	+.03	15.6	-5.8	44	22	26	-19	9	5	54	14	10	79	4.48	+.1.7	5,940	s.	40	28	8	6	10	5.4	19.5
Boston.	125	115	181	29.92	30.07	+.02	28.6	-2.5	58	22	37	-8	9	20	37	26	22	79	5.90	+.1.0	9,258	w.	38	22	13	5	13	5.6	22.8
Nantucket.	12	43	85	30.03	30.04	-.01	38.6	-2.8	54	22	39	-1	9	28	36	28	27	76	18,507	n.	62	18	8	20	7.3	6.1	14.5		
Block Island.	31	11	60	30.02	30.05	-.01	33.3	-2.9	54	22	40	-5	9	27	29	31	27	76	7.64	+.4.0	17,374	n.w.	73	13	5	8	11	6.1	14.5
New Haven.	106	117	140	29.95	30.07	-.00	28.8	-3.4	53	22	37	-5	9	21	35	26	21	72	6.49	+.3.1	8,016	n.	38	13	18	4	11	4.1	17.3
Mid. Atlantic States.																													
Albany.	97	102	115	30.00	30.11	+.03	23.4	-3.2	50	22	32	-11	9	14	44	21	18	84	5.18	+.2.4	16,508	n.w.	34	29	9	6	16	5.8	33.5
Binghamton.	875	79	90	29.10	30.07	-.02	24.6	-3.9	50	33	32	-9	15	16	39	22	20	73	2.92	+.1.1	5,332	w.	32	5	4	7	20	5.7	26.6
New York.	314	108	350	29.73	30.09	-.00	32.2	-2.2	51	16	38	8	9	26	22	29	24	73	6.19	+.2.9	16,1188	s.	56	11	6	14	5.7	9.6	
Harrisburg.	374	94	104	29.70	30.12	-.00	30.0	-4.4	54	36	35	13	10	24	20	27	27	77	4.57	+.1.5	5,934	n.w.	33	18	6	11	6.1	6.0	14.0
Philadelphia.	117	188	184	29.98	30.13	+.01	33.7	-1.8	60	22	40	17	9	27	23	31	27	77	6.63	+.3.9	16,896	n.w.	52	11	7	13	5.4	6.2	14.0
Scranton.	805	111	119	29.21	30.11	+.01	27.2	-	53	33	34	3	9	20	25	26	20	74	4.36	+.1.8	6,159	s.	32	3	5	11	7	8	15.8
Atlantic City.	52	39	48	30.04	30.11	+.01	35.8	-0.6	58	3	43	16	9	29	27	32	29	78	7.15	+.3.3	16,7480	n.w.	34	5	11	10	5.3	1.4	
Cape May.	17	47	51	30.10	30.18	+.02	36.8	-1.1	53	3	43	16	9	31	25	34	21	75	5.81	+.2.0	16,740	n.w.	33	5	11	10	6.0	7.0	
Baltimore.	123	69	117	29.97	30.11	-.02	34.8	-2.7	57	21	40	18	28	29	31	31	26	73	5.66	+.2.5	15,5940	s.	30	5	11	12	8.1	6.0	3.0
Washington.	112	59	76	30.00	30.13	-.00	34.4	-1.8	60	21	41	16	28	28	31	27	76	5.29	+.2.8	14,5461	w.	30	5	10	10	5.0	6.2	14.0	
Cape Henry.	5	58	30.08	30.10	-.02	43.6	-0.3	60	70	50	24	38	37	32	32	27	77	2.50	+.1.4	12,094	n.w.	48	1	9	10	12	6.2	0.1	
Lynchburg.	631	83	88	29.35	30.11	-.03	38.4	-0.9	67	3	46	19	27	30	30	34	29	76	4.03	+.1.0	11,3709	w.	23	8	10	11	6.0	0.1	
Norfolk.	91	102	111	30.03	30.13	-.00	43.8	+.0.5	70	3	51	20	28	36	28	39	35	76	7.57	+.1.2	12,575	n.	52	10	10	11	6.0	0.1	
Richmond.	144	82	90	29.97	30.13	-.01	40.1	-	68	11	48	20	27	32	31	31	27	77	4.12	+.1.2	14,4149	n.	24	10	10	7	14	6.2	1.1
Wytheville.	2,293	40	47	27.66	30.11	-.04	35.0	-	58	16	45	10	27	25	31	25	23	83	2.34	+.0.2	12,5484	w.	23	3	10	3	18	6.4	4.8
S. Atlantic States.																													
Asheville.	2,265	73	100	27.74	30.12	-.04	38.4	-	67	11	47	11	27	30	37	34	31	80	2.30	-.1.0	9,867	n.	38	25	10	8	13	5.9	T.
Charlotte.	773	68	76	29.28	30.13	-.03	42.4	-1.2	61	11	50	27	35	35	37	34	82	3.42	-.1.1	5,032	n.e.	36	5	12	5	12	5.3	T.	
Hatteras.	11	12	47	30.10	30.11	-.02	48.8	+.0.6	71	3	55	27	24	48	44	45	78	2.92	+.2.8	11,1128	n.	60	5	10	6	15	6.1	T.	
Raleigh.	876	93	101	29.72	30.14	-.01	42.4	-1.5	69	3	51	17	24	34	35	37	82	3.15	+.0.0	13,5077	n.e.	40	4	11	11	9	4.9	T.	
Wilmington.	78	82	90	30.02	30.11	-.04	49.0	+.0.7	73	3	59	19	27	40	38	43	85	3.26	+.0.3	6,297	n.e.	45	4	11	11	9	3.0	T.	
Charleston.	48	14	92	30.09	30.14	-.01	52.4	+.0.9	73	13	60	23	27	45	46	48	81	4.23	+.1.0	7,581	n.	45	4	11	15	9	3.0	T.	
Columbia.	351	114	122	29.75	30.15	-.01	47.3	-0.6	71	16	56	23	27	39	32	41	87	3.60	+.0.7	5,984	n.e.	48	4	9	9	13	5.0	T.	
Augusta.	180	89	97	29.94	30.13	-.03	48.0	+.0.3	71	18	57	19	27	39	31	42	89	3.48	+.0.0	5,180	w.	30	4	15	6	10	4.6	T.	
Savannah.	65	79	89	30.06	30.13	-.02	58.6	+.1.2	76	16	62	24	27	45	37	47	82	5.40	+.0.6	5,575	n.	40	4	15	7	9	4.4	T.	
Jacksonville.	43	101	129	30.06	30.11	-.03	57.1	+.1.1	79	2	66	24	27	49	32	51	48	78	5.82	+.3.0	5,787	n.w.	45	4	14	9	8	4.3	T.
Florida Peninsula.																													
Jupiter.	28	10	30	30.05	30.09	-.01	69.0	+.2.3	86	1	75	39	27	63	62	59	77	0.71	-.1.0	3,819	n.w.	20	4	16	14	1	3.6	T.	
Key West.	22	43	50	30.05	30.07	-.01	70.4	+.0.4	83	4	74	52	28	52	55	52	80	2.12	+.0.5	7,504	n.e.	33	4	18	9	4	3.0	T.	
Tampa.	34	60	67	30.07	30.11	-.01	61.8	-.0.1	81	1	71	28	52	55	52	79	1.39	-.1.0	4,747	n.w.	40	4	18	9	4	3.0	T.		
East Gulf States.																													
Atlanta.	1,174	190	216	28.87	30.13	-.03	43.0	-2.3	67	13	50	15	27	36	33	39	79	4.86	+.0.7	7,10205	n.w.	48	4	9	11	11	5.5	T.	
Macon.	370	93	99	29.73	30.14	-.02	47.2	-	71	13	56	17	27	38	31	37	82	2.84	-.1.0	10,4299	n.w.	30	4	10	6	15	5.8	T.	
Pensacola.	56	79	96	30.07	30.13	-.02	53.8	-.0.7	72	2	62	24	27	46	45	48	78	3.59	-.0.8	7,660	n.	45	4	11	11	9	5.0	T.	
Mobile.	57	88	96	30.08	30.14	-.01	52.2	-0.2	72	12	60	23	27	44	45	47	88	7.35	+.2.9	10,539	n.	31	4	12	8	11	4.9	T.	
Montgomery.	233	100	112	29.90	30.13	-.03	48.1	-1.5	72	2	57	17	27	40	49	43	87	5.46	+.0.8	7,581	n.	44	4	9	12	15	6.0	T.	
Meridian.	375	84	94	29.73	30.13	-.03	46.8	-2.7	72	15	56	23	27	38	33	37	82	5.40	+.0.1	9,4326	s.e.	28	4	9	12	15	6.0	T.	
Vicksburg.	247	62	74	29.83	30.10</td																								

TABLE I.—Climatological data for Weather Bureau Stations, December, 1902—Continued.

Stations.	Elevation of instruments.		Pressure, in inches.		Temperature of the air, in degrees Fahrenheit.								Precipitation, in inches.		Wind.																					
	Barometer above sea level, feet.		Sea level, reduced to mean of 24 hours.		Departure from normal.				Mean maximum + mean minimum + 2.		Departure from normal.		Mean maximum.		Minimum.		Greatest daily range.		Mean wet thermometer.		Total.		Departure from normal.		Total movement, miles.		Prevailing direction.		Maximum velocity.							
	Thermometers above ground.		Actual, reduced to mean of 24 hours.		Departure from normal.		Mean maximum.		Date.		Mean minimum.		Date.		Mean minimum.		Mean temperature of the dew-point.		Mean relative humidity, per cent.		Days with 0.1, or more.		Total.		Miles per hour.		Direction.		Clear days.							
North Dak.—Cont'd.																																				
Williston	1,885	14	44	28.03	30.14	+ .08			1.3		- .8	.7	35	31	15	- -28	12	- 7	38	8	- 1	73	0.68	10	6,108	n.	40	n.w.	23	13	8	10	4.6	8.9		
Upper Miss. Valley.		99	208						15.6		+ .4	.4	39	1	28	- -20	26	8	25	15	12	34	2.48	+ .1.2	12	9,047	n.w.	42	n.w.	2	7	5	10	6.8	24.0	
Minneapolis		837	102	122	29.17	30.12	+ .04		15.9		- 2.9	.8	38	1	23	- 17	26	9	28	15	12	34	2.48	+ .1.2	12	5,894	s.	30	n.w.	24	7	6	18	7.0	17.4	
St. Paul		714	71	87	29.32	30.13	+ .05		19.8		- 3.8	.4	34	31	27	- 10	8	13	29	22	19	84	2.03	+ .0.6	12	6,139	s.	27	n.e.	3	4	12	15	7.1	18.0	
La Crosse		606	71	79	29.43	30.10	.00		23.6		- 3.6	.6	37	1	27	- 7	26	8	30	22	19	84	1.88	+ .0.2	12	6,394	w.	32	n.w.	24	9	16	6	5.9	5.9	
Davenport		861	84	88	29.18	30.16	+ .05		22.4		- 4.4	.4	49	50	1	29	- 7	26	15	32	20	18	85	1.77	+ .0.3	10	6,740	sw.	28	n.w.	24	4	10	7	14.5	9.9
Des Moines		698	100	117	29.33	30.12	+ .02		21.9		- 4.0	.4	44	1	28	- 6	26	16	26	19	15	79	2.24	+ .0.4	12	5,359	n.w.	25	n.w.	24	9	19	7.3	12.1		
Dubuque		614	63	78	29.43	30.12	.00		27.0		- 2.8	.6	56	1	33	- 2	26	21	26	24	21	83	2.21	+ .0.2	9	6,452	sw.	32	n.w.	24	8	17	6.6	6.1		
Keokuk		356	87	93	29.76	30.16	+ .01		37.0		- 2.2	.2	64	11	23	- 8	26	30	25	34	31	82	6.95	+ .3.6	12	7,556	n.w.	42	n.w.	2	6	9	16	6.6	0.2	
Cairo		644	82	93	29.41	30.12	.00		28.6		- 4.2	.2	54	1	34	- 0	26	23	31	26	24	83	2.23	+ .0.5	14	7,986	sw.	33	n.e.	24	8	4	14	6.7	2.7	
Springfield, Ill.		534	75	110	29.52	30.12	.00		28.7		- 3.2	.6	56	1	35	- 1	26	22	22	27	1.76	+ .0.1	11	7,560	n.	31	n.e.	14	9	5	17	6.4	5.2			
Haunib		567	111	210	29.50	30.12	+ .01		34.0		- 1.6	.6	56	1	40	- 5	28	24	31	26	76	3.81	+ .1.0	8	5,543	s.	38	n.w.	2	11	16	6	4.4	1.7		
St. Louis									32.1		- 6.5	.5	52	1	26	- 20	26	3	35	.....	82	2.16	+ .1.1	8	5,661	n.w.	30	n.w.	23	4	19	7.4	21.4			
Missouri Valley.		784	11	84	29.25	30.11	+ .01		30.0		- 4.3	.5	57	1	36	0	26	24	27	22	17	87	2.20	+ .0.4	13	6,868	sw.	32	n.w.	24	11	2	18	6.4	0.5	
Columbia		963	78	95	29.08	30.16	+ .04		29.0		- 2.9	.6	56	1	36	0	26	23	23	27	24	82	1.89	+ .0.4	7	5,647	n.w.	28	n.w.	24	9	16	6.3	4.4		
Kansas City		1,324	98	104	28.67	30.12	+ .01		32.9		- 5.7	.5	50	11	40	2	26	26	24	31	29	87	3.34	+ .0.7	11	6,385	s.	31	n.w.	27	1	8	19	6.3	3.0	
Topeka		81	89						37.9		- 6.9	.5	58	1	36	0	26	20	20	20	15	82	1.26	+ .0.3	9	6,862	s.	31	n.w.	27	1	15	11	17	6.3	3.0
Lincoln		1,189	75	84	28.80	30.18	+ .01		22.0		- 8.4	.5	52	1	36	- 7	26	15	20	17	82	1.96	+ .1.2	11	5,183	n.w.	36	n.w.	3	10	13	12	7.0	14.1		
Omaha		1,105	116	121	28.90	30.14	+ .03		21.5		- 5.2	.5	50	1	29	8	26	14	31	19	17	86	2.72	+ .1.7	11	6,906	n.	31	n.w.	24	6	15	11	16	7.0	14.1
Valentine		2,598	47	54	27.26	30.10	.00		18.6		- 8.6	.2	52	1	28	- 7	25	9	36	16	14	86	1.28	+ .0.9	11	8,848	n.w.	39	n.w.	23	10	11	11	5.4	12.8	
Sioux City		1,135	96	164	28.86	30.14	+ .02		17.7		- 6.4	.6	46	1	25	- 15	21	16	26	16	11	78	1.43	+ .0.6	9	5,364	n.w.	50	n.w.	24	6	17	15	15	5.5	18.2
Pierre		1,572	43	50	28.40	30.16	+ .06		15.4		- 9.3	.4	49	22	23	- 14	26	9	34	13	9	77	2.21	+ .1.8	8	5,738	e.	36	se.	27	19	11	10	5.7	23.1	
Huron		1,306	56	67	28.69	30.16	+ .01		22.6		- 8.2	.4	41	20	26	- 2	26	3	36	10	6	78	2.12	+ .5.5	9	5,193	n.	30	n.w.	2	10	10	11	6.0	0.147	
Yankton		1,238	42	49	28.77	30.16	+ .05		17.4		- 5.1	.5	52	1	31	- 1	26	16	33	19	16	30	8.32	+ .2.5	10	5,661	n.w.	30	n.w.	23	4	19	7.4	21.4		
Northern Slope.					20.6	5.9			50.6		- 4.0		52	1	31	- 1	26	20	26	3	35	.....	80	0.73	+ .0.2	8	5,661	n.w.	30	n.w.	23	4	19	7.4	21.4	
Havre		2,505	46	53	27.34	30.12	+ .07		9.6		- 11.0	.4	41	30	18	- 24	11	1	37	9	7	87	0.52	+ .0.1	6	7,043	ne.	48	sw.	30	8	6	17	6.4	5.2	
Miles City		2,371	42	50	27.48	30.10	.00		16.0		- 3.3	.4	54	1	26	- 6	7	6	36	14	12	94	0.22	+ .0.1	7	5,432	s.	27	n.w.	24	7	15	12	4	3.6	2.2
Helena		4,110	88	94	25.77	30.12	+ .01		22.1		- 3.2	.5	58	9	30	- 6	7	4	40	20	16	77	0.75	+ .0.2	7	5,944	sw.	34	n.w.	27	9	12	15	12	6.5	7.9
Kalispell		2,965	45	51	26.91	30.07	+ .01		25.4		- 8.4	.4	52	1	31	- 6	7	19	24	22	17	87	2.24	+ .0.4	17	5,807	w.	27	n.w.	23	1	15	6	14	5.5	8.0
Rapid City		3,234	46	50	26.57	30.08	+ .01		23.4		- 6.8	.6	62	9	33	- 3	7	13	48	20	16	77	0.80	+ .0.6	7	5,939	w.	35	n.w.	28	12	15	16	5.5	8.0	
Cheyenne		6,088	56	64	28.92	30.06	+ .03		28.6		- 0.1	.1	56	26	39	- 5	16	19	37	23	16	62	1.79	+ .1.5	9	5,645	n.w.	52	w.	27	14	11	10	4.7	19.8	
Landier		5,372	26	36	24.60	30.16	+ .01		22.6		- 1.8	.6	58	10	36	- 3	8	10	41	17	13	78	0.25	+ .0.5	1	5,332	ne.	30	n.w.	27	14	11	10	3.4	2.5	
North Platte.		2,821	43	52	27.09	30.15	+ .05		22.2		- 4.9	.5	59	1	31	- 1	26	16	33	19	16	80	0.68	+ .0.2	8	5,932	w.	30	n.w.	2	10	10	11	5.8	9.0	
Oklahoma					40.6	- 1.2			50.6		- 4.0		52	1	31	- 1	26	22	22	27	26	76	0.47	+ .0.8	8	5,607	n.w.	30	w.	2	11	12	13	8	1.6	
Southern Slope.		1,738	45	54	28.26	30.11	+ .04		34.8		- 2.6	.7	73	6	54	22	22	44	15	17	87	0.59	+ .0.1	5	6,507	n.w.	30	n.w.	2	11	12	13	8	1.6		
Amarillo		8,676	43	52	26.24	30.06	+ .03		34.4		- 0.4	.1	73	9	48	12	5	25	46	29	24															

TABLE II.—Climatological record of voluntary and other cooperating observers, December, 1902.

Stations.	Temperature. (Fahrenheit.)			Precipita- tion. Rain and melted snow.	Total depth of snow.	Stations.	Temperature. (Fahrenheit.)			Precipita- tion. Rain and melted snow.	Total depth of snow.	Stations.	Temperature. (Fahrenheit.)			Precipita- tion. Rain and melted snow.	Total depth of snow.	
	Maximum.	Minimum.	Mean.				Maximum.	Minimum.	Mean.				Maximum.	Minimum.	Mean.			
<i>Alabama.</i>																		
Ashville.....	66	14	43.4	In.	6.12		Tuba.....	60	10	31.7	0.15	3.0	<i>California—Cont'd.</i>	°	°	°	Ins.	Ins.
Benton.....							Tucson.....	78	26	50.3	2.15		Escondido.....	76	26	48.5	3.04	
Bermuds.....	78	18	48.6		8.05		Vail *1.....	80	32	56.4	0.85	T.	Fallbrook.....	76	30	51.9	4.00	
Birmingham.....	68	13	45.7		5.44		Walnut Grove.....				0.06		Fernando.....	78	32	52.7	3.08	
Bridgeport.....							Willcox *1.....	57	23	43.0	1.00	T.	Folsom *1.....	70	30	47.5	4.15	
Burkeville.....							Yarnell.....				1.01	1.5	Fordyce Dam.....				9.22	60.0
Calera.....							<i>Arkansas.</i>						Fort Bragg.....				7.05	
Camphill.....	70*	22*	46.2*		4.80		Alco.....	59	10	38.5	6.28	10.0	Fort Ross.....	62	36	49.3	7.87	
Citronelle.....	74	20	52.2		7.91		Amity.....	67	18	41.2	5.27	4.0	Foster.....				3.01	
Clanton.....	69	14	43.6		7.67		Arkadelphia.....		25				Georgetown.....	68	27	44.5	7.76	
Cordova.....	72	13	44.0		5.30		Arkansas City.....						Geserville.....	64	27	45.6	2.91	
Daphne.....	76	18	52.8		6.64		Batesville.....						Gilroy (near).....	72	25	48.0	1.25	
Decatur.....	72*	14*	45.0*		4.80		Blanchard.....	70	19	45.4	5.07	3.0	Glendora.....				2.55	
Demopolis.....							Brinkley.....	69	15	41.9	6.16		Greenville.....	61	13	35.2	7.49	2.5
Dothan.....	74	17	52.0		2.99		Camden a.....						Hanford.....	76	23	43.6	0.56	
Eufaula.....	73	17	48.2		5.59		Camden b.....	70	22	44.2	5.77	3.0	Healdsburg.....	64	28	47.7	4.61	
Eutaw.....	69	16	45.8		5.60		Conway.....	66	14	40.4	6.24	2.0	Hollister.....	70	24	47.8	1.02	
Evergreen.....	73	13	50.1		5.77		Corning.....	62	11	37.0	6.23		Humboldt L. H. ....				7.39	
Floomatou.....	77	19	50.9		5.77		Dallas.....	65	18	40.2	6.28	6.5	Idylwild.....	73	12	42.0	2.00	9.0
Florence a.....							Dardanelle.....						Imperial.....	84	32	52.8	1.75	
Florence b.....	69	10	42.4		5.75		De Queen.....	71*	22*	43.4*	3.48	3.0	Indio *1.....	73	28	51.5	0.80	
Fort Deposit.....	71	16	47.0		8.74		Dutton.....	71	12	37.4	5.43	10.0	Iowa Hill *1.....	64	32	45.6	8.27	
Gadsden.....	70	14	42.5		6.79		Elon.....	75*	25*	46.3*	4.27	0.5	Irvine.....	76	34	56.2	2.74	
Goodwater.....	71	13	43.0		5.76		Eureka Springs.....	62	8	37.3	3.97		Jackson.....	65	31	46.5	3.73	
Greensboro.....	70	16	46.1		5.91		Fayetteville.....	62*	8*	34.2*	5.01	16.6	Jolon.....				1.20	
Greenville.....							Forrest City.....	82	15	40.8	7.17		Kennedy Gold Mine.....	62	24	40.9	4.18	
Hamilton.....	69*	8d	42.3d		5.34		Fulton.....						Kent.....	65	29	47.7	5.52	
Helena.....							Hardy.....	63	9	38.8	5.26		Kernville.....				0.45	
Highland Home.....	74	15	49.1		7.34		Helena a.....						King City.....	74	23	48.4	0.69	
Lefohatchie.....							Helena b.....						Kono Tayee.....	57	31	44.6	2.47	
Lock No. 4.....	70*	14*	45.4*		7.00		Holiday.....						Laguna Valley.....				2.95	6.0
Madison Station.....	68	13	44.0		4.05		Home.....						Lanesa.....				3.03	
Maplegrove.....	71	14	41.5		5.91		Jonesboro.....	64	13d	39.5d	6.83		Laporte *1.....	50	18	32.7	12.84	27.2
Marlon.....	69	11	46.4		3.68		Lake Village.....	67	21	45.2	4.17		Legrande.....	70	28	46.2	1.14	
Milstead.....							Lutherville.....	61	15	41.2	5.68	5.0	Lemoncove.....	75	29	48.1	1.23	
Newbern.....	72	16	47.4		5.58		Marianna.....	65	15	41.9	9.75		Lick Observatory.....	59	26	41.8	3.11	0.5
Newburg.....	70	8	41.0		6.99		Marvell.....	68	16	43.2	10.20		Lime Point L. H. ....	72	26	48.3	1.44	
Notasulga.....							Mosserville.....	59	10	35.7	5.13	1.6	Livermore.....	72	26	48.3	0.87	
Oneonta.....	68	9	42.4		4.44		Mountain Home.....	63	9	35.9	4.46	4.0	Lodi.....	68	27	45.8	1.52	
Opelika.....	70	14	44.6		6.27		Mount Nebo.....	62	12	37.0	5.01	6.0	Los Banos.....	65	30	46.2	0.25	
Ozark.....	73	17	48.7		3.07		New Gascony.....	70*	18*	40.6*	8.01		Los Gatos.....	68	32	43.7	1.89	
Prattville.....	70	15	46.1		6.55		Newport a.....	64	14	39.6	5.22		Mammoth *1.....	78	34	54.2	0.61	
Pusmataha.....	72	18	46.9		5.66		Newport b.....	71	19	41.5	7.02		Mazuma.....	65	26	42.6	1.78	6.0
Riverton.....	70	9	40.4		7.08		Newport c.....	64	15	40.4	7.75		Mare Island L. H. ....				2.26	
Scottsboro.....	65	15	40.4		4.51		Oregon.....	63	5	35.8	4.12	8.0	Merced.....	69	29	44.4	0.36	
Seima.....	70	16	45.3		5.90		Ozark.....	65*	16	39.5*	5.42	1.5	Mercury.....	66	30	51.4	5.51	
Talladega.....	72	13	44.6		6.15		Perry.....	68	18	41.2	7.46	6.0	Mills College.....				3.73	
Tallasee.....							Pineoluff.....	71	19	41.5	7.02		Milo.....				1.58	
Thomassville.....	71				2.50		Pocahontas.....	61	8	37.6	5.15		Milton (near).....	70	26	47.6	1.61	
Tuscaloosa.....	70	14	48.8		4.96		Pond.....	63	7	35.6	4.38	4.0	Modesto *1.....	75	33	48.4	0.65	
Tuskegee.....	73	16	48.8		6.51		Prescott.....	70	20	43.9	5.15		Mohave *1.....	65	27	42.0	0.21	
Union Springs.....	71	15	47.8		7.35		Princeton.....	70	17	42.8	6.27		Mokelumne Hill *3.....				3.57	
Uniontown.....	74	15	47.4		5.75		Rison.....	71	14	42.2	7.86		Monterio.....	70	30	47.2	3.00	
Valleyhead.....	78	12	42.4		3.83		Rosadale.....	71	20	44.2	4.75	5.0	Monterey *1.....	63	31	51.4	1.17	
Verbena.....							Russellville.....	86*	18d	39.2d	4.45	6.0	Mount St. Helena.....				8.54	
Wetumpka.....	72	17	48.4		5.34		Silversprings.....	62	8	36.6	3.76		Napa.....	63	30	47.8	2.94	
Allaire Ranch.....							Spielerville.....	67	17	39.4	6.32	11.5	Needles.....	70	30	48.8	0.55	
Arizona Canal Co's Dam.....	75	39	56.2		2.32		Stuttgart.....	68	15	42.4	7.69		Nevada.....	72	22	43.1	7.65	
Aztec.....	79	33	55.9		1.25		Texarkana.....	69	20	45.2	2.80	4.0	Newcastle.....	65	29	45.4	4.75	
Benson *1.....	78	34	51.9				Warren.....	72	17	43.6	7.36		Newhall *1.....	76	26	46.1	2.45	
Bisbee.....	70	25	45.3		1.85		Washington.....	68	20	44.0	4.60	2.0	Newman.....	67	26	45.4	0.49	
Bowie.....	72	21	51.0		1.25		Wiggs.....	66	13	40.7	6.11	6.5	Niles.....	70	32	49.0	1.46	
Buckeye.....	74	29	49.6		1.20		Winchester.....	67*	7	36.2	6.05	12.0	North Bloomfield.....	66	22	41.6	8.05	
Champie Camp.....	84	20	48.4		0.90	10.0	California.	75	22	44.6	0.54		North Ontario.....	80	32	51.8	2.54	
Casagrande.....						Angiola.....	78	36	54.8	3.14		North San Juan *1.....	64	27	46.7	9.66		
Cochise *5.....	74	29	46.1		2.08		Azusa.....	78	36	54.8	3.14		Oakland.....	65	34	49.0	3.14	
Congress.....	76	34	51.0		1.10		Bakersfield.....	76	27	47.2	0.36		Ogilby *1.....	85	45	57.2	0.05	
Dragon Summit *1.....	63	30	41.2		2.70		Ballast Point L. H. ....						Orland *1.....	64	32	48.5	1.62	
Dudleyville.....	80	20	48.3		3.01		Berkeley.....	60	8	48.2	3.69		Palermo.....	61	26	45.8	4.62	
Duncan.....	73	15	42.6		1.62		Bishop.....	69	11	38.4	0.03		Paso Robles.....	66	18	42.4	0.96	
Fort Apache.....	70	10	44.2		2.18	0.3	Boca *1.....	55	2	27.0	1.60	6.0	Peachland *5.....	61	30	48.2	5.31	
Fort Defiance.....	52	-16	22.9		1.05	8.0	Bodie.....	54	-19	22.2	0.15	1.5	Piedras Blancas L. H. ....				1.95	
Fort Grant.....	71	20	44.5		2.00		Bowman.....	57	18	36.0	12.99	34.3	Pigeon Point L. H. ....				1.60	
Globe.....	67	23	45.8		2.35		Branscomb.....						Pine Crest.....	75	41	55.0	3.03	
Jerome.....	64	21	42.8		1.00	10.0	Campbell.....	68	28	47.0	0.86		Placererville.....	68	22	42.7	4.42	
Maricopa.....	73	27	49.0		1.20		Cape Mendocino L. H. ....	</										

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>California—Cont'd.</i>																	
Roe Island L. H.	°	°	°	Ins.	Ins.	Colorado—Cont'd.	°	°	°	Ins.	Ins.	Florida—Cont'd.	°	°	°	Ins.	Ins.
Rohnerville *6.	65	26	46.2	2.18	6.87	Montrose	53	0	27.4	0.84	12.9	Rockwell	83	22	62.0	1.85	
Rosewood	59	23	42.6	3.50		Moraine	55	-16	22.7	0.73	11.5	St. Andrews	76	23	53.4	2.54	
Sacramento	68	30	46.8	3.59		Pagoda	55	-6	21.0	2.38	26.5	St. Augustine	85	25	59.2	5.08	
Salinas	70	22	48.8	1.39		Parachute	52	-6	21.0	0.46	6.3	St. Leo	85	26	61.3	1.46	
Salton *1	77	32	55.1	0.98		Rangely	53	-25	16.8	0.97	11.8	Stephensville	82	21	55.0	5.52	
San Bernardino	86	25	51.4	1.94		Rockyford	71	-7	30.3	0.33	4.5	Summer	83	23	58.4	14.93	
San Jacinto	78	29	50.0	2.12		Rogers Mesa	52	-7	22.8	0.80	7.6	Switzerland	84	26	56.0	7.63	
San Jose	71	29	50.3	0.92		Ruby	49	-28	17.0	5.11	7.9	Tallahassee	80	22	55.6	5.39	
San Leandro	64	31	47.2	3.25		Russell	49	-28	17.0	0.91	12.0	Tarpon Springs	85	28	61.0	3.42	
San Luis L. H.				1.00		Saguache	46	-20	15.3	0.42	7.0	Waupkeah	76	20	53.4	7.33	
San Mateo *1	57	32	40.0	1.90		Salida	61	-14	30.0	0.40	6.0	Wauwa	82	18	54.2	2.47	
San Miguel *1	68	22	45.8	0.34		Saltillo	55	-28	19.2	0.78	19.0	Weahatchka				3.17	
Santa Ana	70	35	55.4	2.48		San Luis	58	-4	30.0	1.10	19.0	<i>Georgia.</i>					T.
Santa Barbara	74	38	54.2	2.24		Santa Clara	56	0	25.2	0.59	4.5	Adairsville	68	16	42.4	5.47	
Santa Barbara L. H.				2.19		Silt	60	-2	30.8	1.34	21.0	Albany	71	27	52.3	5.21	
Santa Clara	72	26	49.2	1.22		Tulluride	47	-11	21.5	4.03		Allapaha	77	19	52.4	5.52	
Santa Cruz	70	28	49.6	2.23		Trinidad	66	3	36.0	0.31	8.0	Apharett	69	18	42.0		
Santa Cruz L. H.				2.12		Twinlakes			0.30	6.2		Americus	72	14	49.2	2.79	
Santa Maria	73	32	52.3	0.79		Villas			0.27	4.0		Athens	70	16	43.7	4.42	
Santa Monica	73	39	53.6	2.97		Wagon Wheel	49	-31	12.0	0.95	16.0	Bainbridge	76	18	52.0	4.44	
Santa Ross	68	25	46.6	4.43		Wallet			0.87	13.0		Blakely	74	18	49.8	2.17	
Sausalito				6.26		Waterdale	67	-2	32.0	0.83	10.0	Bowersville	68	14	42.6	4.27	
Shasta	58	30	44.6	7.37		Westcliffe	55	-8	28.6	1.46	22.4	Brent	72	14	45.2	6.70	
Sierra Madre	76	40	53.8	3.26		Whitepine	40	-19	14.7	1.78	24.2	Butler				3.85	
Sonoma				2.91		Wray	65	-2	26.5	0.59	6.5	Cannav	70	16	46.2	3.17	
Stockton	66	31	45.1	1.26		Yuma			0.73	11.5		Carlton				5.86	
Storey	70	27	45.0	1.67		<i>Connecticut.</i>						Clayton	67	13	41.3	8.09	0.5
Summerville	65	15	39.9	3.95	7.0	Bridgeport	58	-4	29.6	7.04	19.0	Columbus	73	18	48.8	4.60	
Summit	41	12	28.1	4.60	46.0	Canton	50	-13	22.8	6.95	31.0	Coney	74	16	50.6	2.70	
Susanville	60	7	32.5	3.04	3.0	Colchester	55	-10	27.8	8.06	29.5	Covington	70	14	44.4	3.50	
Tehama *1	68	34	50.4	2.79		Falls Village			6.48	29.2		Dalhousiega	67	14	41.6	8.00	T.
Tejon Ranch	75	30	49.2	2.06		Gaylorville			7.16			Diamond	64	12	41.6	6.82	
Trimmer				1.41		Hartford a	55	-8	27.7	7.10	24.5	Douglas	80	18	51.0	6.50	
Trinidad L. H.	50	-4	29.2	3.60	36.0	Hartford b	49	-8	25.9	8.26	22.5	Dublin				2.77	
Truckee *1				0.49		Hawleyville	52	-11	26.6	5.44	33.0	Dudley	72	12	49.7	2.71	
Tulare b.						Lake Konomoc			6.53			Eastman	73	17	49.4	2.91	
Tulare c.	80	26	48.3	0.50		New London	55	-6	27.8	5.67	14.5	Elberton	67	15	43.9	4.71	
Tustin	69	40	56.2	2.82		North Grosvenor Dale	54	-11	24.8	7.02		Experiment	69	14	44.5	2.80	
Ukiah	59	25	45.0	5.71		Norwall	53	-7	27.4	7.02	15.5	Fitzgerald	77	16	50.5	3.90	
Upperlake	65	21	42.7	3.70		South Manchester	50	-13	25.9	8.55	21.5	Fleming	78	12	51.8	4.87	
Upper Mattole *1	60	31	45.9	15.88		Storrs	58	-9	25.6	5.86	16.1	Fort Gaines	77	18	51.0	3.14	
Vacaville *1	63	26	47.5	2.00		Voluntown	57	-10	28.4	6.38	17.1	Gainesville	64	14	42.0	6.15	
Visalia	75	27	46.0	0.71		Wallingford			8.60	19.0		Gillsville	69	14	44.2	4.48	
Volcano Springs *5	80	32	59.4	0.95		Waterbury	52	-12	26.8	6.92	32.0	Greensboro	69	14	44.2	5.15	
Wasco	75	25	45.3	0.36		West Cornwall	48	-15	22.8	7.68	42.5	Griffin	69	15	44.8	3.11	
Westpoint				5.02		West Simsbury			7.32	35.0		Harrison	71	17	49.6	2.66	
West Saticoy				1.10		<i>Delaware.</i>						Hawkinsville	76	17	49.4	8.52	
Wheatland	65	29	45.4	3.81		Delaware City						Hephzibah	70	17	47.3	2.38	
Williams *1	64	35	50.3	1.07		Milford	64	15	37.8	5.52	5.0	Jesup	78	18	53.1	4.16	
Willits	60	26	44.2	9.66		Millsboro	65	18	36.0	7.42	1.5	Lost Mountain	70	14	44.0	5.15	
Willow	64	27	45.7	0.96		Newark	58	9	31.0	7.35	5.0	Louisville	72	17	47.8	2.81	
Yerba Buena L. H.				2.10		Seaford	63	17	37.0	4.79	2.0	Lumpkin	74	13	49.8	3.16	
Zenia	58	24	41.8	11.95	3.0	<i>District of Columbia.</i>						Marshallville	73	16	49.4	2.66	
<i>Colorado.</i>						Distributing Reservoir *6	54	20	35.2	5.50		Mauzy	81	18	53.4	2.83	
Aldorf	63	2	30.4	0.55	8.0	Receiving Reservoir *6	52	20	34.6	6.39		Milledgeville	70	18	45.8	3.08	
Ashcroft	50	-14	19.7	1.42	17.0	West Washington	60	13	33.4	5.72	1.8	Millen	78	14	50.8	3.38	
Blaine	74	-5	31.8	0.61	9.2	<i>Florida.</i>						Monticello	70	15	46.0	5.02	
Boulder	68	8	36.5	1.84	17.0	Archer	83	20	57.6	9.80		Morgan	79	14	49.0	2.20	
Boxelder				1.51		Avon Park	92	30	63.6	2.44		Naylor	80	20	54.0	5.47	
Breckenridge	45	-23	14.4	1.08	20.2	Bartow	87	28	65.3	1.52		Newman	67	14	43.0	5.59	
Buenavista				0.85		Bonifay	78	20	53.8	2.25		Oakdale				6.25	
Canyon	67	4	37.4	0.57	6.0	Brooksville	84	25	61.2	4.25		Point Peter	69	13	43.8	4.57	
Castlerock	66	-8	31.0	1.36	18.0	Carrabelle	79	33	57.9	6.95		Poulain	77	15	50.8	4.11	
Cedaredge	65	-4	27.4	1.15	10.1	Clermont	89	31	68.8	1.45		Putnam	72	15	48.0	3.65	
Cheeseman	63	-10	30.6	0.63	9.1	De Funis Springs	79	17	52.6	2.98		Quiltman	77	20	53.4	11.34	
Cheyenne Wells	65	-1	27.9	0.52	7.2	Deland	88	25	60.5	1.96		Ramsey	68	15	43.4	5.88	
Clearview	54	-8	25.9	1.76	23.0	Eustis	84	27	62.6	1.96		Resaca				5.65	
Colorado Springs	64	0	32.6	0.82	6.0	Federal Point	82	29	59.4	6.00		Rome	69	17	42.0	5.47	
Colbran	49	-9	22.4	0.86	13.8	Fernandina	78	25	56.7	7.28		St. Marys	81	21	55.6	7.34	
Delta	56	-20	20.7	0.94	13.0	Flamingo	85	39	70.4	1.13		Statesboro	74	19	51.4	4.09	
Durango	59	8	26.4	2.69	26.0	Fort George *1	80	24	56.8	8.88		Talbotton	71	16	47.4	1.54	
Fort Collins	58	-18	27.0	0.77	10.6	Fort Meade	83	23	61.7	2.68		Tallapoosa	70	13	42.0	4.99	
Fort Morgan	50	-12	21.6	0.51	7.0	Fort Myers	82	36	63.8	2.93		Thomasville	78	20	53.7	6.45	
Fox	62	-8	25.5	1.55	14.5	Fort Pierce	88	34	65.6	2.26		Toccoa	68	16	42.9	6.10	
Fruita	54	-6	23.2	0.17	1.6	Grasmere	84	25	59.5	7.31		Valona	79	19	55.8	3.20	
Garnett	49	-32	11.6	1.03	6.5	Huntington	85	25	60.5	2.55		Vidalia	74	18	50.8	2.92	
Gilmans				2.37													

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipa- tion.		Stations.	Temperature. (Fahrenheit.)			Precipa- tion.		Stations.	Temperature. (Fahrenheit.)			Precipa- tion.		
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.	
<i>Idaho—Cont'd.</i>																		
Oakley	52	7	30.6	Ins.	Ins.	Anderson	51	0	3	28.6	3.90	6.0	Clearlake	42	—16	16.3	1.95	9.5
Ola				0.75	2.0	Angola	44	—1	25.1	4.67	20.0		48	—12	22.8	2.09	8.5	
Paris	47	—23	17.2	1.52	12.9	Auburn	45 <sup>c</sup>	—1	24.4 <sup>c</sup>	2.85	...	Clinton	53	—7	22.6	2.44	15.6	
Payette	50	8	32.0	1.89	16.2	Avoca	59 <sup>c</sup>	—1	33.7 <sup>c</sup>	4.66	2.9	College Springs	48	—5	22.8	2.16	13.8	
Pollock	58	17	36.5	1.31	5.3	Bloomington	56	—1	30.8	5.28	6.0	Columbus Junction	49	—10	20.6	3.10	19.8	
Porthill	42	10	26.4	3.54	40.0	Bluffton	49	—1	26.4	2.70	6.5	Corning	51	—13	21.0	1.91	...	
Priest River	41	13	27.8	4.39	25.5	Butlerville	55	—1	31.7	5.02	3.9	Council Bluffs				1.80	14.0	
Riddle	54	—4	25.6	1.40	11.0	Cambridge City	52	—1	27.8	3.56	3.6	Cumberland				1.10	...	
St. Maries	44	6	31.9	4.95	21.2	Columbus	56	—1	32.0	3.90	2.8	Danville				43	12	
Silver City	48	—25	26.6	4.90	31.0	Connorsville	53	—1	29.3	3.62	2.5	Decorah	40	—15	18.2	2.25	14.3	
Soldier	42	14.8	2.48	24.2		Crawfordsville	50	—3	29.8	4.10	4.5	Delaware	49	—14	18.2	1.40	9.0	
Thunder Mountain	44	0	21.8	4.98	41.7	Delphi	50	—2	26.2	3.97	9.2	Denison	50	—7	22.5	2.79	12.3	
Vernon	60	—8	25.0	...		Edwardsville	58	—12	36.1	7.20	2.5	Dows	44	—13	17.2	1.70	16.0	
Weston	51	5	27.4	1.28	5 0	Elkhart	49	—1	26.0	2.03	8.6	Erlam	49	—10	19.4	2.59	16.8	
<i>Illinois.</i>						Farmland	57	—1	29.4	3.71	9.0	Eldon	53	—6	23.6	1.45	1.1	
Albion	57	5	32.6	4.99	1.0	Franklin <sup>a</sup>	55	—6	31.9	8.91	...	Elkader	47	—11	20.4	2.50	11.0	
Aledo	56	—7	24.4	1.96	6.2	Greencastle	51	—1	29.4	3.98	3.4	Estherville	46	—20	14.6	1.80	...	
Alexander	55	0	28.6	2.45	1.2	Greensburg	54	—1	30.8	4.25	3.5	Forest City	43	—16	17.4	2.80	14.0	
Antioch	45	—5	23.2	0.70	4.2	Hammond	50	—1	24.0	2.08	9.0	Fort Madison				3.20	9.0	
Ashton	50	—12	22.2	1.69	9.0	Hector	48	—2	26.8	4.00	12.0	Galva				1.90	8.5	
Astoria	53	—1	26.9	2.77	9.5	Holland	61	5	35.0	7.18	1.5	Gilman				1.60	10.0	
Aurora	51	—6	24.6	1.71	4.3	Huntington	49	—8	26.0	3.52	12.5	Grand Meadow	42	—14	18.2	2.44	10.7	
Benton	65	9	35.2	5.55	0.8	Jeffersonville	60	—8	35.4	5.54	1.0	Greene	45	—12	19.0	2.30	19.1	
Bloomington	50	—2	27.2	2.24	3.3	Kokomo	48	—4	27.5	2.68	8.4	Greenfield	47	—12	20.2	1.98	18.0	
Cambridge	52	—6	24.1	2.05	15.5	Lafayette	49	—2	27.4	3.47	9.8	Grinnell (near)	48	—8	20.6	2.26	13.8	
Carlinville	54	1	30.6	3.39	1.0	Laporte	51	3	26.5	3.09	23.8	Grundy Center	45	—11	19.0	2.05	12.5	
Carrollton	53	1	30.4	3.14	...	Logansport	43	—2	26.0	3.12	...	Guthrie Center	44	—11	20.2	2.27	19.6	
Centralia	59	4	32.8	3.88	2.5	Madison a	62	2	34.9	5.64	3.0	Hampton	47	—12	18.8	2.42	16.4	
Charleston	50	2	30.0	3.94	2.5	Madison b						Hanloutown	46	—15	16.6	...		
Chester				4.08	0.0	Marengo	61	1	34.5	6.75	3.0	Harlan	48	—12	18.6	2.69	14.2	
Cleme	62 <sup>c</sup>	32.8 <sup>c</sup>	4.11	2.0		Marion	50	4	27.5	3.12	10.5	Hopeville				1.69	...	
Coatsburg	53	—5	27.0	2.80	4.0	Markle	49	—1	27.0	3.75	14.5	Humboldt	46	—15 <sup>c</sup>	17.5	1.57	15.7	
Cobden	64	5	36.4	6.36	T.	Mauzy	53	—1	28.9	4.02	6.0	Idagrove	46	—14	18.3	3.10	...	
Decatur	54	—1	28.6	8.83	8.9	Moores Hill	59	6	32.0	4.87	4.0	Independence	41	—11	18.2	1.72	12.6	
Dixon	50	—9	21.8	2.13	13.9	Mount Vernon	62	—7	31.4	6.02	0.8	Indianola	50 <sup>c</sup>	—8 <sup>c</sup>	21.8 <sup>c</sup>			
Dwight	48	—2	26.4	1.49	5.2	Northfield	50	—8	27.6	3.01	6.0	Iowa City	51	—7	22.2	2.21	12.0	
Edingham	56	3	32.8	3.40	3.0	Paoli	58	3	33.4	5.49	2.5	Iowa Falls	43	—11	17.9	2.11	16.0	
Equality	58	8	35.8	5.17	0.2	Prairie Creek	55	1	31.0	3.38	...	Jefferson				2.32	11.8	
Fandon	54	—3	27.4	2.39	6.0	Princeton	60	6	34.4	5.53	2.5	Koosauqua	51	—3	24.8	2.21	12.5	
Friendsgrove	62	6	33.2	5.13	1.0	Rensselaer	47	—2	26.4	2.79	16.0	Lacona				3.60	20.7	
Galva	54	—7	24.4	1.64	8.0	Richmond	55	—4	29.8	3.77	2.5	Lansing	45	—12	20.4	2.12	...	
Grafton				4.48	1.5	Durham	51	3	29.0	3.11	3.0	Larrabee	47	—77	16.6	2.17	11.8	
Greenville	59	2	31.2	3.92	1.8	Rockville	62	—1	33.6	7.25	2.0	Leclaire				1.38	6.3	
Griggsville	56	—2	28.8	2.65	...	Salem	62	—1	33.6	7.25	2.0	Lemars	45	—13	18.1	3.15	11.0	
Halfway	64	6	34.8	4.75	1.5	Scottsburg	60	—2	34.7	5.19	2.0	Lenox	49	—12	20.4	2.19	8.8	
Halliday	64	5	34.9	4.79	0.0	Seymour	57	—2	31.5	4.90	4.5	Leon	50	—7	22.8	2.03	12.9	
Henry	53	—2	26.2	1.88	4.0	Shelbyville	59 <sup>c</sup>	—9 <sup>c</sup>	33.4 <sup>c</sup>	3.62	...	Logan	44	—9	20.2	2.14	12.0	
Hillsboro	53	1	30.4	4.00	1.5	South Bend	59	0	26.2	3.81	19.5	Maple Valley				1.97	12.0	
Hoopston	45	—2	25.4	2.60	8.5	Syracuse	46	0	25.4	3.17	23.5	Maquoketa	45	—13	19.6	2.35	9.0	
Joliet	50	—3	24.9	1.68	4.7	Terre Haute	52	6	31.4	3.79	2.5	Marshalltown	47	—8	21.4	...	9.4	
Kishwaukee	48	—11	21.4	1.87	6.5	Topeka	44	—2	25.1	1.32	4.0	Monticello	50	—14	19.6	2.46	14.0	
Knoxville				4.48	1.5	Valparaiso	48	—4	24.9	1.96	...	Mountsyr	51	—9	21.1	2.57	7.4	
Lagrange	50	—4	25.7	2.31	2.8	Vevay	60	5	35.4	6.35	9.0	Mount Pleasant	49	—8	22.4	1.08	10.8	
Laharpe	52	—1	25.8	2.04	6.5	Vincennes	60	6	32.0	4.55	3.0	Mount Vernon	46	—11	21.0	2.40	15.6	
Lanark	49	—11	21.8	2.78	17.1	Washington	60	7	32.4	4.81	1.5	New Hampton	41 <sup>c</sup>	—13 <sup>c</sup>	18.0 <sup>c</sup>	2.20	12.0	
Loami				1.86	0.5	Worthington	58	—2	31.6	4.57	3.2	Newton	47	—10	20.5	2.13	15.5	
McLeansboro	68	5	34.4	5.27	1.0	<i>Indian Territory.</i>	62	17	39.0	2.41	...	Northwood	44	—13	17.8	2.68	18.0	
Martinton	51	—6	26.0	2.91	6.5	Ardmore	71	13	37.8	1.74	1.2	Odebolt	46	—14	18.8	3.50	14.5	
Mascoutah	54	4	32.0	8.75	1.2	Chickasha	71	13	38.5	1.39	1.5	Ordens	52	—17 <sup>c</sup>	23.3 <sup>c</sup>	1.63	7.4	
Mattoon	54	2	32.8	2.77	2.9	Claremore	61	12	38.2	3.25	2.0	Olin	44	—13	21.2	2.87	...	
Minonk	51	—6	25.6	1.79	5.0	Durant	69	20	40.2	3.36	...	Onawa	46	—9	19.9	2.85	20.2	
Monmouth	53	—6	23.3	2.56	9.3	Fairland	65	8	36.8	2.76	1.0	Osage	41	—13	17.4	2.41	16.1	
Monticello	53	1	27.4	1.01	2.5	Goodwater	72	21	44.4	4.86	6.0	Oscceola	51	—9	22.5	2.34	...	
Morrison	50	—13	23.4	2.45	10.9	Hartshorne	66	19	40.4	2.95	3.5	Oskaloosa	52	—6	25.6	1.63	15.25	
Morrisonville	51	1	29.8	3.02	1.0	Healdton	73	16	40.6	3.94	...	Ottumwa	52	—2	25.6	0.67	6.7	
Mount Carmel				5.82	2.0	Holdenville						Ovid	47	—7	22.8	2.89	13.5	
Mount Pulaski	53	0	27.8	3.21	4.5	Marlow	72	18	38.5	1.39	1.5	Pacific Junction	49	—7	20.9	2.58	12.7	
Mount Vernon	60	4	33.8	4.91	2.0	Muskogee	68	14	38.2	3.25	2.25	Perry	50	—10	20.6	2.54	14.2	
New Burnside	66	6	35.6	6.08	T.	Pauls Valley	69	14	38.2	2.25	2.0	Plover	45	—17	17.4	1.10	11.0	
Olney	65	5	32.8	4.01	3.4	Ravia	74	19	41.8	2.72	3.2	Redoak	56					

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.		Stations.	Temperature. (Fahrenheit.)			Precipitation.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
Iowa—Cont'd.	°	°	°	Ins.	Ins.	Kentucky—Cont'd.	°	°	°	Ins.	Ins.	Maryland.	°	°	°	Ins.	Ins.
Winterset	56	— 9	21.0	2.09	12.9	Franklin	65	10	38.4	7.75	T.	Annapolis	°	°	°	Ins.	3.0
Woodburn	.....	.....	.....	2.40	14.0	Greensburg	62	12	37.3	8.82	0.2	Bachmans Valley	58	12	36.0	7.80	.....
Kansas.	.....	.....	.....	0.40	4.0	Henderson	63	8	35.6	6.46	0.2	Boettcherville	56	3	28.9	8.24	10.0
Abilene	73	— 10	23.8	0.86	8.6	Highbridge	63	11	37.6	8.50	1.4	Cambridge	59	5	32.2	4.97	13.5
Achilles	60	— 8	25.3	0.68	5.5	Hopkinsville	67	8	37.9	11.38	0.2	Chase	56	0	32.6	7.62	3.5
Altoona	.....	.....	.....	0.72	4.0	Irvington	69	8	37.5	5.92	1.5	Cheltenham	60	12	33.4	5.19	3.5
Anthony	58	— 2	27.0	1.60	7.2	Jackson	71	13	40.8	6.17	4.5	Chestertown	59	15	33.8	6.83	3.5
Atchison	58	— 3	30.6	1.63	3.0	Leitchfield	64	8	35.5	11.97	1.6	Chewsville	57	5	30.8	3.98	8.0
Burlington	58	— 3	25.6	0.88	5.5	Loretto	64	9	35.8	7.41	0.1	Clearspring	58	12	30.4	7.03	13.8
Chanute	59	— 4	31.2	1.71	1.0	Manchester	62	12	37.3	7.10	1.5	Coleman	59	16	34.6	7.42	4.5
Clay Center	59	— 7	25.6	1.09	7.7	Marionbone	64	12	36.4	7.82	T.	Collegepark	60	9	32.8	5.21	.....
Colby	69	— 5	24.2	0.82	9.1	Mayfield	70	8	37.6	8.12	3.1	Colora	58	8	31.3	7.91	7.5
Columbus	62	— 5	33.8	2.57	1.1	Maysville	67	11	36.3	6.51	3.1	Darlington	54	— 4	26.6	7.09	22.0
Cottonwood	58	— 1	30.0	1.17	4.4	Middlesboro	63	3	37.6	5.10	4.0	Deerpark	64	11	35.4	3.15	2.5
Delphos	58	— 8	24.1	0.88	5.5	Mount Sterling	60	10	35.4	8.97	5.0	Denton	70	16	36.2	4.58	2.4
Dresden	74	— 2	25.6	0.83	8.0	Owensboro	64	9	37.4	5.91	1.0	Easton	57	6	32.2	6.70	5.0
Ellinwood	59	— 5	27.8	1.09	9.0	Owenton	58	6	34.2	7.32	1.2	Fallston	57	6	32.2	6.70	5.0
Englewood	66	— 1	30.8	0.60	4.5	Paducah a	.....	.....	9.20	T.	Frederick	53	9	32.9	5.99	9.5	
Eureka	.....	.....	.....	1.51	.....	Paducah b	68	8	39.2	9.53	T.	Grantsville	56	4	27.4	5.72	19.8
Eureka Ranch	65	— 11	25.3	0.98	10.0	Pikeville	70	14	39.6	4.07	1.5	Greatfalls	57	11	32.0	5.41	.....
Fall River	62	5	32.6	0.81	1.0	Princeton	64	5	36.2	9.08	1.0	Greenspring Furnace	55	8	30.5	5.67	11.0
Farnsworth	74	— 5	26.2	0.63	6.7	St. John	63	12	35.8	7.19	0.1	Hancock	62	4	31.7	5.46	11.2
Forsna	61	— 3	29.8	0.65	5.0	Scott	59	— 3	32.8	5.14	7.5	Harney	58	— 1	28.0	8.63	19.8
Fort Leavenworth	57	— 1	28.2	1.05	4.0	Shelby City	61	6	35.8	9.60	3.0	Jewell	61	16	36.3	5.59	1.0
Fort Scott	61	3	32.8	1.56	T.	Shelbyville	67	5	34.4	5.84	4.0	Johns Hopkins Hospital	59	18	34.2	7.64	.....
Frankfort	52	— 2	24.5	1.73	7.5	Taylorville	63	9	36.0	6.55	0.5	Laurel	58	5	32.3	5.59	5.0
Fredonia	60	4	33.3	2.32	1.0	Warfield	72	10	40.5	4.02	1.0	McDonogh b	60	10	33.8	4.84	.....
Garden City	69	— 12	27.8	1.00	8.7	Williamsburg	72	13	40.5	4.02	1.0	Mount St. Marys College	52	15	31.0	5.68	12.5
Gove	69	5	26.4	1.70	.....	Williamstown	60	9	34.0	5.67	7.0	New Market	52	14	31.9	6.23	7.0
Grenola	65	5	32.1	1.37	1.2	Louisiana.	.....	.....	.....	.....	.....	Princess Anne	64	16	37.1	3.71	1.5
Hanover	50	0	23.5	0.85	8.0	Abbeville	80	27	52.8	5.45	4.0	Queenstown	61	19	35.0	7.06	4.0
Harrison	56	— 5	22.6	0.66	4.9	Alexandria	78	25	48.6	4.37	4.0	Sharpsburg	58	16	33.4	4.49	.....
Hays	63	— 6	25.1	1.35	13.5	Amite	78	23	49.3	7.10	4.0	Solomons	63	20	37.8	3.45	1.2
Holton	58	— 8	26.6	1.53	6.5	Baton Rouge	75	24	50.0	6.76	4.0	Sudlersville	60	12	34.8	6.21	2.8
Horton	57	— 3	25.5	1.83	7.5	Burnside	76	26	55.0	6.24	4.0	Sunnyside	54	— 1	28.0	8.63	19.8
Hoxie	71	— 4	24.9	1.05	10.5	Calhoun	72	19	45.2	4.17	1.3	Takoma Park	58	11	32.8	6.06	.....
Hutchinson	61	— 4	28.6	0.83	7.0	Cameron	70	31	63.5	4.14	4.0	Van Bibber	55	9	33.3	7.46	.....
Independence	65	6	33.4	2.09	0.5	Cheneyville	75	26	49.0	5.04	T.	Westernport	56	9	31.4	3.07	9.5
Jetmore	61	— 5	28.3	0.65	6.5	Clinton	73	24	51.6	6.44	4.0	Woodstock	59	11	34.0	6.65	5.0
La Crosse	61	— 8	26.3	0.65	6.5	Collinston	75	23	46.2	5.39	4.0	Massachusetts.	.....	.....	.....	.....	.....
Lakin	65	— 7	28.0	0.40	5.0	Covington	74	25	51.8	6.75	4.0	Amherst	49	— 15	23.8	4.27	26.5
Lawrence	56	0	28.2	1.83	6.2	Donaldsonville	82	27	54.6	4.20	4.0	Bedford	63	— 12	25.1	5.60	25.5
Lebanon	54	— 3	22.4	0.90	9.0	Emilie	75	26	51.6	6.18	4.0	Bluelith (summit)	55	— 14	26.2	5.50	32.0
Lebo	57	— 2	29.7	1.60	3.0	Farmerville	71	21	42.2	3.94	4.0	Cambridge	56	— 11	26.6	5.99	.....
Leoti	72	— 5	29.0	0.42	4.2	Franklin	79	30	53.5	5.59	4.0	Chestnut Hill	55	— 10	27.3	5.53	23.0
Little River	59	— 4	27.2	0.65	6.5	Grand Coteau	78	26	52.2	5.68	4.0	Cohasset	.....	.....	.....	.....	.....
Macksville	59	— 7	26.0	0.69	5.0	Hammond	74	24	52.0	5.69	4.0	Concord	53	— 12	23.2	5.32	25.1
McPherson	77	0	27.6	0.90	5.5	Houna	78	29	53.2	7.28	4.0	East Templeton*	44	— 14	22.7	6.01	29.8
Madison	59	— 4	31.2	1.60	4.0	Janerette	80	31	55.4	2.37	4.0	Fall River	58	— 7	29.6	6.76	26.0
Manhattan	62	— 2	28.3	1.18	8.0	Jennings	78	27	51.6	4.42	4.0	Fitchburg a*	46	— 12	23.8	6.75	34.0
Meade	60	— 1	28.8	0.50	5.0	Lafayette	78	27	51.9	5.02	4.0	Fitchburg b	50	— 14	24.0	6.34	27.0
Medicine Lodge	65	1	31.9	0.72	4.5	Lake Charles	77	30	53.0	3.39	4.0	Framingham	54	— 14	25.6	6.61	31.0
Minneapolis	58	— 7	24.6	0.75	7.5	Lake Providence	78	28	48.2	4.52	4.0	Groton	47	— 14	23.0	6.39	33.5
Moran	58	2	32.8	1.89	1.0	Lakeside	79	31	53.2	3.20	4.0	Holyoke	50	— 8	31.2	6.51	15.5
Mouthope*	55	8	30.6	0.92	5.0	Lawrence	80	31	53.8	8.18	4.0	Hyannis	50	— 8	31.2	6.51	15.5
Ness City	64	— 2	28.7	0.61	6.4	Libertyhill	76	22	48.4	3.45	4.0	Jefferson	52	— 12	24.4	5.92	31.2
Newton	58	3	29.9	1.20	4.0	Mansfield	74	24	49.9	4.39	1.0	Lawrence	54	— 12	24.4	5.92	33.2
Norwich	62	7	31.0	0.71	2.0	Minden	71	24	47.5	4.15	0.5	Leominster	51	— 11	25.7	6.29	29.2
Oberlin	54	— 29.2	1.35	10.5	Monroe	74	23	47.6	3.44	1.0	Lowell a	47	— 19	20.2	6.50	28.5	
Olathe	54	0	29.2	1.10	3.0	New Iberia	79	29	54.4	5.60	4.0	Middleboro	57	— 9	27.4	6.06	18.6
Oswego	62	5	34.3	2.21	T.	Opelousas	79	26	51.0	5.51	4.0	Monson	53	— 12	24.3	7.20	31.0
Ottawa	58	0	29.2	1.59	4.0	Oxford	76	24	48.3	2.10	0.3	New Bedford a	53	— 10	29.1	5.53	28.0
Paola	57	104	31.4	1.45	1.8	Plain Dealing	71	22	46.1	5.30	2.8	Pittsfield	.....	.....	.....	.....	.....
Phillippeburg	.....	.....	.....	1.36	11.0	Port Eads	78	40	58.4	6.07	4.0	Plymouth a	48	— 9	30.1	6.77	27.0
Pittsburg	.....	.....	.....	2.17	0.7	Rayne	75	30	54.8	6.80	4.0	Princeton	61	— 2	33.8	6.53	15.8
Pratt	62	1	28.8	0.55	6.0	Reserve	78	29	53.7	6.07	4.0	Provincetown	61	— 2	33.8	6.53	29.0
Republie	56	— 10	27.7	0.60	6.0	Robeline	75	22	48.3	2.70	4.0	Salem	55	— 24.4	25.0	5.53	29.0
Rome	69	10	32.7	1.12	2.0	Ruston	73	18	46.0	4.15	4.0	Somerset*	54	— 12	30.0	5.83	22.5
Salina	58	— 11	26.3	0.84	5.0	Schriever	80	28	53.2	6.77</							

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>Michigan—Cont'd.</i>	°	°	°	<i>Ins.</i>	<i>Ins.</i>	<i>Minnesota—Cont'd.</i>	°	°	°	<i>Ins.</i>	<i>Ins.</i>	<i>Mississippi—Cont'd.</i>	°	°	°	<i>Ins.</i>	<i>Ins.</i>
Cassopolis	48	0	25.4	3.60	23.0	Ashby	34	-22	10.8	1.42	13.0	Shoecoe	72	17	46.2	5.53	T.
Charlevoix	50	2	27.9	2.45	14.0	Beardsley	42	-29	11.6	1.30	7.0	Stonington	72	20	49.1	4.23	T.
Charlotte	40	9	20.2	2.55	25.5	Beaupre	34	-29	8.2	0.38	5.5	Suffolk	76	23	54.1	9.75	T.
Cheboygan	42	1	24.6	1.10	10.5	Bird Island	39	-25	12.2	2.39	13.0	Swartwout	72	26	45.4		T.
Clinton	48	4	26.2	2.51	8.7	Brainerd	38	-15	15.0	1.70	9.5	Thornton	72	12	42.6	8.20	
Coldwater	46	2	26.0	2.50	9.0	Blooming Prairie	37	-25	10.2	2.48	14.0	University	70	13	43.8	6.01	1.0
Deerpark	38	1	21.6	5.00	49.0	Caledonia	38	-17	16.2	2.27	12.0	Walnutgrove	75	17	46.4	4.35	0.5
Detour	39	4	22.6	3.34	20.0	Collegeville	39	-20	15.0	1.67	15.1	Water Valley	74	19	49.4	5.46	3.5
Dundee	46	2	26.1	3.14	9.5	Crookston	35	-24	9.8	0.45	4.5	Waynesboro	72	22	49.5	7.90	
Eagle Harbor	40 <sup>a</sup>	6 <sup>d</sup>	23.2 <sup>d</sup>	2.16	21.7	Currie	45	-23	12.4			Woodville	73	20	45.6	4.07	T.
East Tawas	44	4	24.6	2.19	5.0	Deephaven	.....	.....	1.62			Yazoo City	73	20			
Eloise	48	3	25.5	2.14	8.9	Detroit	36	-30	8.1	0.49	4.0	<i>Missouri.</i>					
Ewen	41	1	16.5	1.62	16.2	Duluth	33	-22	13.0	2.18	20.0	Appleton City	58	2	31.0	3.17	T.
Fennville	48	8	28.0	2.85	10.2	Faribault	38	-18	14.8	2.37	13.5	Arthur	61	4	33.2	2.27	T.
Fitchburg	44	3	24.7	3.39	14.5	Farmington	39	-20	15.2	2.72	25.0	Avalon	56	5	27.6	1.85	
Flint	45	3	24.7	1.84	6.5	Fergus Falls	36	-22	11.4	0.94	7.5	Bethany	52	5	25.2	2.16	4.0
Frankfort	44	16	28.8	1.46	10.0	Glencoe	38	-22	13.3	1.20	11.0	Birchtree	60 <sup>c</sup>	4 <sup>e</sup>	34.6 <sup>c</sup>	3.85	T.
Gaylord	39	3	19.2	1.10	11.0	Grand Meadow	37	-16	13.4	3.19	27.0	Boonville	57	5	26.0	1.82	0.1
Gladwin	41	2	19.8	1.47	7.0	Hallowell	36	-32	5.3	0.18	2.0	Brunswick	57	2	28.4	2.02	T.
Grand Marais	40	7	24.0	3.58	35.2	Leech	38	-90	9.6	1.29	12.5	Carrollton	56	2	29.0	0.94	T.
Grand Rapids	49	9	26.6	2.69	5.1	Long Prairie	37	-29	10.6	1.43	12.5	Conception	53	0	23.6	1.42	7.0
Grape	47	6	26.0	2.73	16.1	Laverne	42	-16	14.2	2.55	12.0	Darkserville	55	2	27.6	0.71	1.8
Grayling	41	10	21.2	1.70	16.0	Lynd	45	-28	13.4	2.63	18.5	Dean	62	5	35.7	4.21	2.0
Hagar	52	11	29.1	3.01	15.2	Mapleplain	40	-26	13.2	3.19	25.0	Desoto	60	3	33.8	3.83	0.2
Harbor Beach	45	5	27.6	1.65	3.5	Milaca	35	-28	11.6	0.91	8.0	Downing	57	2	28.0	2.10	5.5
Harrison	37	2	19.8	2.80	7.3	Milan	39	-30	10.4	2.97	22.8	Edgewise	61	6	35.2	3.60	T.
Hart	47	6	25.0	4.09	27.0	Minneapolis <sup>b</sup>	39	-21	14.8	2.37	17.7	Edwards	60 <sup>c</sup>	2	33.4 <sup>c</sup>	2.17	T.
Hustings	48	5	25.9	8.20	11.2	Montevideo	35	-81	10.6	2.35	19.2	Eightmile <sup>a</sup>	51	1	28.8	1.97	1.0
Hayes	48	10	24.8	2.16	7.5	Morris	38	-26	11.3	1.81	17.6	Fairport	59	1	30.8	1.67	T.
Highland Station	.....	.....	.....	2.50	8.5	Mount Iron	38	-27	8.8	2.05	20.5	Fayette	59	1	31.0	1.98	1.0
Hillsdale	48	0	24.9	3.03	15.5	New London	34	-28	8.8	2.00	15.0	Fulton	57	1	31.0	1.98	1.0
Humboldt	.....	.....	.....	0.97	9.7	New Richland	41	-17	16.4	2.68	13.5	Galena	54	1	27.9	1.69	3.7
Iron Mountain	45	6	19.1	1.55	15.5	New Ulm	40	-19	15.4	1.74	10.2	Gallatin <sup>*1</sup>	56	-1	29.0	1.58	0.5
Iron River	38	14	15.8	2.45	21.0	Park Rapids	33	-25	10.0	0.96	9.2	Glasgow	55	-1	29.0	2.06	4.6
Ironwood	40	11	16.8	1.78	17.8	Pipestone	40	-20	11.3	2.02	16.5	Gorin	53	1	23.8	1.55	6.0
Ishpeming	38	5	17.9	1.50	15.0	Pleasant Mounds	41 <sup>f</sup>	-20	15.6 <sup>f</sup>	2.46	12.5	Grant City	58	-7	23.8	1.55	6.0
Ivan	43	1	22.2	2.45	17.0	Pokegama Falls	42	-45	7.6	1.32	9.5	Harrisonville	55	1	28.3	1.99	1.0
Jackson	43	2	23.8	2.97	13.5	Redwing <sup>a</sup>	.....	.....	1.66			Hazelhurst	54	1	27.7	1.47	4.0
Jeddo	45	3	24.8	2.20	9.7	Reeds	.....	.....	2.09			Hermann	54	1	25.4	0.2	T.
Kalamazoo <sup>c</sup>	42	8	26.4	1.06	11.4	Rolling Green	43	-18	15.4	1.90	7.0	Houston	65	3	35.0	3.93	4.0
Lake City	40	-5	21.6	0.70	7.0	St. Cloud	39	-25	13.2	1.43	11.0	Huntsville	55	-2	29.0	1.42	
Lansing	46	2	26.1	2.09	8.6	St. Peter	41	-19	17.6	1.07	11.6	Ironton	66	2	33.6	4.08	1.0
Lapeer	46	1	24.9	.....		Sandy Lake Dam	40	-29	9.6	1.32	12.6	Jackson	65	6	36.4	6.35	0.5
Lathrop <sup>e</sup>	36	-10	16.2	2.68	6.8	Shakopee	39	-21	14.6	3.10	17.5	Jefferson City	58	1	30.6	3.47	1.8
Lincoln	48 <sup>d</sup>	2 <sup>d</sup>	24.0 <sup>d</sup>	0.50	5.0	Tower	36	-33	10.0	1.90	18.0	Joplin	64	5	36.4	1.64	1.2
Ludington	44	18	28.6	1.25	11.0	Two Harbors	38	-23	15.1	1.87	3.5	Kidder	55	-4	25.5	1.63	4.8
Mackinac Island	41	-2	24.4	2.37	15.0	Wabasha	44	-16	17.4	2.31	18.0	Koshkonong	59	6	36.2	5.33	T.
Mackinaw	40	0	25.0	2.14	9.2	Willow River	40	-29	13.2	2.11	19.0	Lamar	61	4	34.3	2.09	T.
Mancelona	44	2	22.6	1.55	15.5	Winnebago City	43	-19	15.8	2.08	11.5	Lamont	59	2	32.9	3.96	6.0
Manistee	44	3	26.5	1.75	16.0	Winona	40	-11	17.9	2.46	13.0	Lebanon	59	2	32.9	3.96	6.0
Manistique	40	-3	22.6	2.41	12.0	Worthington	45	-20	14.2	2.27	11.6	Lexington	57	-1	29.2	1.94	3.5
Menominee	41	-7	22.8	0.85	8.5	<i>Mississippi.</i>	.....	.....	1.00			Liberty	57	-1	28.0	1.84	1.6
Midland	42	-7	24.4	2.20	11.0	Aberdeen	69	17	43.4	6.35		Louisiana	57	0	29.6	2.99	0.2
Mio	40	-12	20.8	1.97	16.2	Agricultural College	70	13	44.9	7.07	T.	Marblehill	65	5	35.8	6.00	0.5
Moutague	46	7	27.2	3.14	13.0	Austin	67	16	43.1	12.44	T.	Marshall	55	-5	29.2	2.38	1.1
Mount Pleasant	45	2	24.3	1.83	11.0	Batesville	70	15	44.8	6.60		Maryville	58	6	21.8	2.05	8.2
Muskegon	50	9	27.8	2.35	9.0	Bay St. Louis	71	26	52.2	7.64		Mexico	58	0	29.2	2.14	1.0
Newberry	41	10	23.2	1.30	13.0	Biloxi	70	24	52.7	5.71		Miami <sup>*5</sup>	54	-1	28.3	1.52	4.4
North Marshall <sup>b</sup>	44	4	26.8	2.85	5.0	Booneville	68	12	41.0	7.10		Mineralspring	56	4	33.8	3.30	9.0
Old Mission <sup>b</sup>	44	11	26.9	1.48	.....	Brookhaven	.....	.....	8.00			Monroe City	56	-4	27.0	2.30	2.8
Olivet	43	5	25.6	2.83	7.7	Canton	72	18	46.8	5.02		Montreal	61	1	32.4	2.80	4.5
Omer	43	2	24.4	1.12	4.0	Columbus	78	15	44.8	5.51		Mountain Grove	59	4	35.4	5.16	5.0
Onaway	41	-4	22.2	1.61	12.5	Corinth	72	19	46.4	7.17		Mount Vernon	68	4	35.4	5.16	5.0
Ontonagon	45	-4	18.8	3.90	39.0	Crystalsprings	72	19	46.4	7.17		Neosho	63	6	35.8	3.94	2.0
Ovid	46	-3	26.7	1.81	3.5	Edwards	72	19	48.0	5.86		Nevada	62	3	33.3	2.19	T.
Osceola	42	2	24.0	1.88	16.3	Fayette	73	21	47.6	4.12		New Haven	60	3	33.1	4.21	4.0
Petoskey <sup>c</sup>	42	2	24.0	1.88	16.3	Fayette (near)	69	20	46.0	4.98		New Madrid <sup>b</sup>	62	8	36.2	2.62	
Plymouth	45	5	27.6	1.20	11.0	Greenville <sup>a</sup>	71	18	44.4	4.95		New Palestine	56	3	31.6	1.70	1.4
Port Austin	45	9	26.9	1.18	3.0	Greenville <sup>b</sup>	71	18	44.4	4.95		Olden	58	2	32.4	3.98	3.5
Powers	43	-8	20.9	.....		Greenwood	72	15	43.8	5.28		Oregon	55	-5	25.4	4.99	3.5
Reed City	42	-2															

TABLE II.—*Climatological record of voluntary and other cooperating observers—Continued.*

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.	
<i>Montana.</i>																		
Anaconda.	°	°	°	Ins.	Ins.		Nebraska—Cont'd.	°	°	°	Ins.	Ins.	Nevada—Cont'd.	°	°	°	Ins.	Ins.
Augusta.	47	5	25.6	1.18	8.3	Hastings*1.	53	—3	21.0	0.80	8.0	Reno State University.	68	12	36.4	0.20	T.	
Billings.	52	—17	24.2	1.00	10.0	Hayes Center.	48	—5	21.0	1.45	14.5	Riverville.	76	21	46.7	0.44		
Boulder.	57	—4	24.0			Hay Springs.	52	—3	23.4	1.98	21.0	Sodaville.	62	8	33.6	T.	T.	
Bozeman.	50	—3	21.6	1.05	10.5	Hebron.	52	—3	23.4	1.17	9.7	Teoma.						
Butte.	52	—1	23.6	0.73	9.0	Hickman.				1.35	10.0	Toano.				0.64	5.0	
Canyon Ferry.	51	—4	26.6	0.90	9.0	Holbrook.				0.74	7.4	Wabuska.	65			0.00		
Columbia Falls.	53	—5	19.8	0.74	6.9	Holdrege.	57	0	23.4	1.20	12.0	Wadsworth.	67	4	35.0	0.15		
Crow Agency.	41	5	24.3	3.48	12.0	Hooper*1.	47	—7	19.5	2.06	12.5	Wells*1.	54	1	29.8	0.20	2.0	
Culbertson.	53	—4	21.3	0.70	7.0	Imperial.	60	—4	20.6	1.84	16.2	Wood.	59	3	29.7	1.75		
Deerlodge.	38	—32	5.4	0.33	3.0	Johnstown.				2.40	24.0	<i>New Hampshire.</i>						
Dillon.	55	—2	24.2	0.06	0.6	Kearny.	58	—1	23.7	0.55	5.5	Alstead.	43	—17	20.6	6.76	30.5	
Ekalaka.	48	—5	25.8	0.56	5.0	Kennedy.	55	—2	22.8	2.80	28.0	Berlin Mills.	43	—25	16.8	3.80	23.7	
Fort Benton (e).	42	—20	16.4	0.90	9.0	Kimball.	54	—4	26.0	2.05	20.5	Bethlehem.	45	—21	17.9	2.76	17.5	
Fort Logan.	49	—11	17.2	0.12	1.2	Kirkwood.	55	—16	18.4	2.70	27.0	Brookline*1.	46	—26	22.9	4.50	24.2	
Glasgow.	32	—29	2.6	0.54	5.4	Laclede.	55	—10	19.8	1.10	10.0	Chatham.	48	—26	17.6	3.40	24.4	
Glenard.	46	—20	8.8	1.50	15.0	Lexington.	60	—5	20.1	1.04	9.0	Concord.	47	—15	20.9	6.14	28.2	
Greatfalls.	52	—10	23.6	0.39	3.9	Lodgepole.	49	—3	22.8	1.70	17.0	Durham.	53	—22	25.0	5.87		
Hamilton.	52	6	29.8	1.41	9.0	Loup.	68	—10	19.8	1.00	10.0	Franklin Falls.	47	—14	20.7	6.12	34.3	
Kipp.	50	—25	15.8	1.30	13.0	Lynch.	51	—23	15.7	1.99	18.4	Grafton.	45	—17	18.5	5.28	32.0	
Lewistown.	55	—11	21.6	1.30	13.0	Lyons.				2.09	18.0	Hanover.	46	—21	18.7	4.29	28.2	
Livingston.	52	—19	22.0	0.13	1.3	McCook*1.	51	—2	25.2	0.60	6.0	Keene.	48	—22	20.6	5.55	26.8	
Manhattan.	50 <sup>a</sup>	—12 <sup>a</sup>	19.6 <sup>a</sup>			McCool Junction.				0.50		Littleton.	40	—23	16.2	2.03	21.0	
Marysville.	46 <sup>a</sup>	—12 <sup>a</sup>	21.2 <sup>a</sup>	1.85	13.5	Madison.	52	—13	19.6	1.25	12.5	Manchester.	49	—14	22.6	6.18	26.5	
Missoula.	44	4	26.2			Marquette.				0.90	9.0	Nashua.	53	—16	23.6	4.48	26.0	
Parrot.	52 <sup>a</sup>	5 <sup>a</sup>	26.4 <sup>a</sup>			Mason.				1.10	11.0	Newton.				2.65		
Plains.	45	9	26.6	2.40	23.0	Minden b.	56	—4	20.4	0.91	8.0	North Stratford.						
Poplar.	38	—29	4.6	1.06	10.6	Nebraska City c.	52	—6	22.0	2.30	15.0	Peterboro.	47	—20	20.8	7.09	27.5	
Red Lodge.	57			0.50	5.0	Nemaha.				1.44		Plymouth.	45	—14	19.4	5.22	34.8	
Ridgeview.	39	—25	7.2	1.17	11.7	Norfolk.	52	—17	17.2	1.85	13.5	Sanbornton.	46	—17	19.2	5.43	27.0	
St. Pauls.	57	—13	21.0	1.01	10.1	North Loup.	59	—8	20.7	0.58	5.3	Sewall Falls.				5.52	26.7	
St. Peter.	51	—18	25.0	0.30	3.0	Oakdale.	53	—17	16.2	1.08	11.7	Stratford.	42	—24	14.6	3.63	23.6	
Springbrook.	42	—25	12.8	1.36	13.6	Odell.				1.50	8.5	West Stewartstown.				3.19	21.9	
Toston.	55	—10	20.4	0.87	8.7	O'Neill.	64	—19	16.8	2.10	21.0	<i>New Jersey.</i>						
Townsend.	56	—11	20.9	0.58	5.8	Palmyra*1.	52	—8	21.0	1.94		Asbury Park.	55	10	34.9	8.71	3.5	
Troy.	40	6	26.6	5.81	21.5	Plattsmouth b.	51	—8	20.4	1.60	14.0	Barnegat.	61	8	34.8	8.93	T.	
Twin Bridges.	52 <sup>a</sup>	1 <sup>a</sup>	23.2 <sup>a</sup>			Purdum.	58	—5	19.4	1.88	17.8	Bayonne.	57	8	31.4	6.88	11.8	
Twodot.	52	—8	17.2	1.80	18.0	Ravenna a.	56	—7	20.6	1.03	9.4	Belvidere.	50	3	27.6	8.99	17.5	
Utica.	55	—13	24.9	0.25	2.5	Redcloud.	55	—2	21.8	0.67	6.7	Bergen Point.	57	7	31.2	7.75	15.3	
Winston.	52	—6	22.7	0.75	8.0	Republican*1.	58	—10	22.6	0.95	9.5	Beverly.	60	10	32.6	6.70	8.8	
Yale.	50	—7	21.9	0.80	8.0	Rulo.				0.87	7.5	Blairstown.	49	—4	26.2	6.65	11.0	
<i>Nebraska.</i>						St. Libory.				1.10	11.0	Brigeton.	58	15	35.1	6.29	2.0	
Agate*1.	47 <sup>j</sup>	—91	21.2 <sup>j</sup>	1.60	16.0	St. Paul.	56	—6	22.2	0.83	7.9	Camden.	58	16	33.5	5.83		
Aldrich.	48	—20	16.2	3.95	39.5	Salem*1.	53	—2	25.6	2.18	7.0	Canton.	60	13	36.0	6.84	T.	
Alliance.	43 <sup>j</sup>	—12 <sup>j</sup>	18.2 <sup>j</sup>	1.00	10.0	Strate.	56	—6	24.3	0.45	13.5	Cape May C. H.	61	11	34.3	7.33	2.0	
Alma.	60	—11	20.8	1.18	11.2	Santee.	52	—19	17.5	2.14	20.8	Charlotteburg.	54	—5	28.0	6.85	15.0	
Ames.	52	—8	21.0	2.08	8.0	Schuyler.				1.30	11.2	Chester.	56	—2	27.2	6.15	16.0	
Ansley.	48	—5	19.0	1.10	11.0	Seward.	53	—4	20.0	1.07	6.7	Clayton.	60	12	33.0	6.11	2.5	
Araspahoe.				0.70	7.0	Smithfield.				0.80	8.0	College Farm.	59	8	30.6	6.83	8.0	
Arborville.				0.59	6.0	Springview.				3.60	36.0	Culvers Lake.	58	9	31.1	8.01	21.1	
Arcadia.				0.60	6.0	Stanton.	52	—14	18.2	1.64	14.0	Dover.	54	0	27.4	7.79	18.0	
Ashland a.	52	—7	22.0	1.79	11.5	State Farm.	52	—9	22.0	2.23	13.5	Egg Harbor City.	61	11	34.3	7.33	2.0	
Auburn.	57	—5	23.8	2.18	12.5	Strang*1.	50	—4	24.3	0.45	4.5	Elizabeth.	57	6	31.4	6.93	11.0	
Aurora.	51	—6	20.6	0.80	8.0	Stratton.				1.30	11.2	Euglewood.	58	6	32.9	6.93	11.0	
Bartley.				0.55	6.0	Superior.	52	—2	21.2	0.80	8.0	Flemington.	58	4	30.0	4.5	7.5	
Beatrice.	51	—5	23.2	0.85	6.8	Syracuse.				2.01	10.0	Freehold.	58	6	30.8	7.80		
Beaver.	61	—4	23.0	0.79	7.5	Tablerock.	50	—6	21.8	1.36	7.0	Friesburg.	58	10	33.8	5.98	2.6	
Bellevue.				2.55	8.7	Weeping Water.	46	—14	19.4	2.27	14.8	Hanover.	56	9	28.5	7.95	16.5	
Benedict.				1.00	10.0	Westpoint.	52	—13	18.8	1.94	15.6	Hightstown.	60	11	31.8	7.28	7.5	
Renklemann*1.	44	—5	23.8	1.50	9.0				0.87	8.8	Imlaytown.	59	10	32.4	6.39	4.5		
Blair.	50	—11	18.4	2.08	10.0				1.95		Indian Mills.	62	8	34.0	7.84	3.5		
Bluehill*1.	43	—8	23.2	0.35	3.5				2.48	14.5	Lakewood.	59	10	33.8	7.44	2.2		
Bradshaw.				0.70	7.0				2.74	17.0	Lambertville.	58	9	30.6	7.39	10.8		
Bridgeport.	50	—6	22.8	0.80	8.0				2.26	13.8	Layton.	51	—11	23.8	7.06	23.5		
Brokenbow.	56	—7	20.4	0.72	7.2				0.80	8.0	Moorestown.	60	12	32.9	7.84	6.4		
Burchard.				1.47	7.0				1.94	15.6	Mount Pleasant.	58	6	30.3	6.40	0.2		
Burwell.				0.95	9.5				1.13	5.6	Newark.	56	8	31.2	7.76	9.3		
Callaway.	52	—7	18.2	0.95	12.0				0.48	5.6	New Brunswick.	58	8	31.2	5.89	4.6		
Cedar Rapids.	55 <sup>a</sup>	—2 <sup>a</sup>	21.0 <sup>a</sup>	0.58	5.8				1.73	17.0	New Egypt.				24.0			
Central City.				0.80	8.0				2.44	16.0	Newton.	51	0	25.4	6.87			
Chester.				0.50	5.0				1.32	11.5	Newton.	58	10	33.7	7.55	8.0		
Cody.				0.95	9.5				0.50	5.0	Oceanie.	58	10	33.7	7.00			
Columbus.	53	—9	19.4	0.91	9.0				0.20	7.0	Paierson.	54	8	31.8	8.33	22.3		
Crete.	51	—7	22.2	1.84	9.2				0.20	7.0	Pemberton.	60	9	32.7	6.78	4.7		
Culbertson.				0.80	8.0				0.16	7.0	Piscataway.	58	6	30.0	6.78	8.5		
Curtis.	60	—1																

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
New Mexico—Cont'd.	°	°	°	Ins.	Ins.	New York—Cont'd.	°	°	°	Ins.	Ins.	North Dakota—Cont'd.	°	°	°	Ins.	Ins.
Carlsbad	82	17	45.6	0.68	15.0	Redhook	48	-16	22.0	7.72	.....	Dunseith	32	-33	3.0	0.20	2.0
Cloudcroft	50	0	29.7	2.00	1.30	Richmondville	48	12	4.45	34.0	.....	Edgeley	48	-24	11.3	0.87	6.3
Deming	57	1	32.6	0.80	9.0	Ridgeway	50	12	26.5	3.15	24.0	Ellendale	37	-28	10.6	1.10	11.0
Dorsey	65	-5	30.7	2.77	11.0	Rome	48	-19	23.4	4.68	25.4	Fargo	35	-31	7.6	0.27	2.7
East View	57	-1	28.6	0.30	4.0	Romulus	55	-3	25.4	4.68	29.0	Forman	34	-29	6.7	0.45	4.5
Espanola	58	-4	31.0	0.63	7.5	Salisbury Mills	45	-23	17.5	7.88	.....	Fort Yates	48	-18	13.6	.....	.....
Folsom	63	16	39.9	3.00	0.6	Saranac Lake	47	-28	20.4	4.51	32.5	Fullerton	36	-30	8.8	1.10	11.0
Fort Bayard	64	9	36.6	0.57	5.7	Saratoga Springs	57	3	32.6	7.46	11.0	Gallatin	36	-28	9.5	0.28	2.8
Fort Stanton	65	6	35.0	0.84	9.5	Setauket	54	-1	25.2	3.10	23.0	Glenullin	43	-19	12.8	0.10	1.1
Fort Union	73	0	33.9	1.22	9.2	Shortsville	44	-21	18.5	4.09	24.2	Grafton	40 <sup>d</sup>	-24	6.6	0.30	3.0
Fort Wingate	62	-9	35.0	0.67	10.0	Skaneateles	54	8	32.9	7.47	8.0	Hannaford	38	-31	7.6	0.41	4.1
Gage	63	-6	35.0	0.67	10.0	Southampton	54	-11	24.4	3.06	23.0	Jamestown	49	-24	7.0	0.40	4.0
Gallinas Spring	68	9	32.7	0.93	12.0	South Canisteo	54	20	21.8	4.11	26.5	Laramore	39	-24	6.8	0.30	3.0
Las Vegas	70	2	36.2	1.20	11.8	Southeast Reservoir	52	-20	23.0	4.20	42.2	McKinney	37	-35	1.0	0.90	9.0
Las Vegas Hot Springs	68	-9	35.0	0.57	5.7	South Kortright	44	-21	18.5	9.25	45.0	Mayville	38	-25	8.0	0.47	4.7
Lordsburg	73	12	42.0	0.50	T.	South Schroon	48	-14	28.2	6.20	.....	Medora	43 <sup>d</sup>	-19 <sup>d</sup>	12.4	0.30	3.0
Mesilla Park	70	16	42.3	0.99	T.	Speen Falls	48	-16	20.4	6.11	.....	Melville	45	-29	9.9	0.10	1.0
Olio	59	5	28.6	0.12	1.2	Straits Corners	55 <sup>d</sup>	-3 <sup>d</sup>	23.0 <sup>d</sup>	2.60	21.0	Milton	31	-31	3.2	0.58	5.8
Raton	65	6	32.8	0.22	2.2	Ticonderoga	47	-17	21.9	1.67	.....	Minnewaukon	39	-29	7.5	T.	T.
Roswell	72	12	42.0	0.50	T.	Volusia	50	5	24.8	3.33	.....	Minot	37	-27	11.0	0.50	5.0
San Marcial	65 <sup>d</sup>	12 <sup>d</sup>	38.3 <sup>d</sup>	0.57	T.	Walton	50	-13	23.0	4.20	42.2	Minto	40	-25	6.0	0.18	1.8
Strauss	73	30	48.0	1.50	T.	Wappinger Falls	48	-14	28.2	9.25	45.0	Napoleon	40	-25	9.8	0.25	2.5
Taos	60	-9	25.9	0.85	10.0	Warwick	52	-16	21.6	6.20	.....	New England	42	-24	11.2	0.53	5.3
Winsors Ranch	50	-8	28.6	1.85	14.0	Watertown	45	-22	21.6	2.81	24.0	Oakdale	49	-22	12.4	1.10	11.0
New York.	.....	.....	.....	.....	.....	Waverly	52	-9	24.9	3.19	26.8	Pembina	36	-31	3.8	0.50	5.0
Adams	55	-4	26.7	2.50	16.0	Wedgewood	52	-1	23.4	8.25	25.7	Portal	32	-32	1.6	1.55	15.5
Addison	40	-26	17.0	3.73	14.0	Wells	49	-28	19.9	7.20	40.1	Power	38	-28	8.0	0.40	4.0
Adirondack Lodge	51	-5	26.6	3.33	21.6	West Berne	51	-21	20.5	4.36	37.0	Steely	37	-27 <sup>d</sup>	8.2	0.10	1.0
Akron	51	-5	26.6	3.33	21.6	Westfield b	53	7	26.8	2.83	.....	University	39 <sup>d</sup>	-27	5.6	0.46	4.6
Alden	52	3	25.7	1.41	T.	Westfield c	52	-12	24.3	5.75	37.8	Valley City	40 <sup>d</sup>	-29 <sup>d</sup>	2.0	0.47	4.7
Amsterdam	50	-11	24.6	1.95	19.5	Windham	53	-12	24.3	5.75	37.8	Wahpeton	38	-23	10.8	1.32	.....
Angelica	54	4	27.6	1.61	12.0	Wolcott	51	-9	24.2	5.15	34.0	Willow City	35	-36	1.0	0.20	2.0
Appleton	50	-16	22.2	2.63	26.3	Youngstown	51	0	1.66	9.5	.....	Ohio.	55	4	27.8	3.53	13.8
Arcade	49	-10	23.3	6.29	35.9	North Carolina.	69	8	38.0	7.00	T.	Akron	50	-4	26.3	4.62	13.5
Athens	51	-18	23.2	2.59	18.5	Brevard	72	14	38.8	5.22	T.	Atwater	53	-4	27.0	4.02	7.2
Atlanta	50	-7	25.4	2.95	33.0	Brewers	69	8	38.0	7.00	T.	Bangorville	50	5	27.4	3.66	23.0
Auburn	50	-7	25.7	1.41	T.	Bryson City	72	14	38.8	5.22	T.	Bellefontaine	50	5	27.4	3.66	14.5
Avon	52	3	25.7	1.41	T.	Chapelhill	69	14	40.6	4.88	T.	Bement	52	-1	28.0	3.13	15.3
Axton	39	-30	15.6	2.96	13.5	Cranberry	55	5	35.2	3.75	T.	Benton Ridge	53	-3	32.2	3.92	4.0
Baldwinsville	49	-8	24.8	4.82	30.5	Currituck	60	0	32.6	3.19	T.	Binola	51	0	27.4	2.66	14.5
Bedford	55	-3	27.6	5.30	.....	Edenton	70	20	45.6	1.78	T.	Blaine	53	0	28.1	3.56	17.5
Blue Mountain Lake	49	-7	33.5	2.45	24.0	Fayetteville	71	16	44.2	3.78	T.	Bloomingburg	50	0	28.0	3.90	6.0
Bolivar	49	-7	23.0	3.08	25.3	Goldsboro	70	16	43.3	2.98	T.	Bowling Green	50	0	26.7	3.33	6.5
Bouckville	46	-16	21.6	5.37	39.5	Graham	65	12	41.2	4.33	T.	Bucyrus	50	0	27.8	2.10	6.0
Boyd's Corner	49	2	25.2	3.25	29.0	Greensboro	65	15	39.8	3.38	T.	Cambridge	59	-5	31.2	4.87	14.0
Caldwell	48	-14	21.1	6.01	31.4	Hendersonville	67	16	42.1	3.15	T.	Camp Dennison	59	-8	32.8	5.27	7.4
Canaan Four Corners	47	-17	21.3	3.40	27.5	Henrietta	66	14	41.8	4.45	T.	Canal Dover	56	-6	29.2	4.09	9.5
Canajoharie	50	-16	20.8	5.43	38.9	Highlands	59	0	32.6	7.35	T.	Capitol	56	1	28.1	3.85	13.6
Canton	45	-25	18.6	2.81	14.8	Horse Cove	63	8	39.0	8.84	T.	Cardington	53	-9	28.4	3.18	8.0
Carmel	48	-9	26.4	7.30	26.5	Hot Springs	65	12	41.2	4.00	T.	Cedarville	53	0	28.0	3.86	7.0
Carvers Falls	47	-25	17.9	8.51	14.0	Kinston	71	16	45.5	1.82	T.	Centerburg	50	0	26.7	5.10	12.5
Cedarhill	49	-10	22.6	3.58	26.5	Kittyhawk	68	22	45.3	5.13	T.	Circleville	58	8	32.2	4.56	10.8
Cooperstown	47	-13	21.4	4.30	26.0	Lexington	69	14	42.0	4.00	T.	Clarington	58	-6	32.0	4.27	9.2
Cortland	50	-8	24.6	4.73	.....	Linville	56	0	32.3	3.98	T.	Clarksville	56	6	30.0	3.26	21.0
Cutchogue	53	2	32.2	7.52	14.0	Littleton	68	15	39.8	3.29	T.	Cleveland a	56	5	28.5	3.12	20.2
Dekalb Junction	50	3	29.0	19.5	.....	Louisburg	68	16	41.4 <sup>b</sup>	2.52	T.	Cleveland b	55	-5	31.7	3.66	5.8
Easton	50	-5	24.0	3.53	22.0	Lumberton	69	18	44.6	3.28	T.	Clifton	60	-5	31.7	3.66	5.8
Elba	46	-24	20.2	7.01	49.5	Marion	67 <sup>d</sup>	13 <sup>d</sup>	39.9 <sup>d</sup>	7.23	T.	Coalton	59	5	33.6	4.73	8.0
Elmira	53	4	27.2	1.96	15.0	Mocksville	67	11	37.4	4.03	T.	Coolville	54	0	27.6	4.77	8.0
Fayetteville	52	-13	25.2	3.13	25.0	Monroe	70	11	42.0	4.84	T.	Cochonton	50	0	27.0	4.52	14.2
Franklinville	53	-14	23.4	2.75	17.9	Morganston	69	11	42.4	3.13	T.	Dayton a	56	-5	30.6	3.95	4.9
Gansevoort	48	-15	21.4	5.88	28.2	Mountairy	67	13	38.2	4.16	T.	Dayton b	49	2	27.2	3.10	13.1
Glens Falls	48	-15	21.4	5.88	28.2	Murphy	64	8	38.8	4.07	T.	Defiance	49	2	27.2	3.10	13.1
Gloversville	46	-20	20.2	7.01	49.5	Newbern	76	16	46.2	4.52	T.	Delaware	54	-9	28.7	3.11	6.7
Greenwich	46	-26	20.0	4.59	17.3	Patterson <sup>*1</sup>	60	13	34.8	4.59	T.	Demos	56	6	30.6	5.19	10.0
Griffin Corners	49 <sup>b</sup>	-12	21.8	5.03	30.6	Pittsboro	68	13	43.6	2.75	T.	Dunham	54	0	28.0	4.39	3.3
Harness	44	-17	19.0	1.46	15.0	Reidsville	68	14	40.0	4.49	T.	Dunkirk	52	0	27.4	2.15	.....
Haskinville	50	-6	26.8	1.75	19.5	Rockingham	73	16	44.6	2.74	T.	Elyria	57	1	28.4	2.39	9.5
Hemlock	50	-12	22.8	5.80	21.0	Roxboro	66	15	40.2	3.36	T.	Findlay	53	1	28.0	2.64	9.5
Honeyman Brook	51	-12	22.8	5.80	21.0	Salem	64	17	38.9	5.53	T.	Fort Recovery	57	2	31.8	4.11	6.2</td

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
Ohio—Cont'd.	°	°	°	In.	In.	Oregon—Cont'd.	°	°	°	In.	In.	Pennsylvania—Cont'd.	°	°	°	In.	In.
Milfordton	54	—10	27.0	4.16	6.0	Corvallis	55	24	40.2	9.92	4.5	Lewisburg	55	—4	26.6	4.96	19.0
Milligan	60	—2	31.4	5.52	6.0	Dayville	61	15	38.0	2.32	5.0	Lockhaven <sup>a</sup>	53	5	28.6	4.27	22.0
Millport	55	—9	27.2	4.46	12.5	Doraville	49	26	37.2	15.37	T.	Lockhaven <sup>b</sup>	—	—	4.40	3.98	4.2
Montpelier	45	3	25.5	3.57	11.5	Ella	—	—	—	1.60	10.0	Lock No. 4	—	—	—	—	—
Napoleon	52	3	27.8	3.52	17.0	Eugene	60	26	41.8	9.84	4.0	Lycippus	51 <sup>c</sup>	8 <sup>c</sup>	30.6 <sup>c</sup>	5.17	26.8
New Alexandria	58	5	30.6	5.00	17.0	Fairview	63	25	47.2	16.06	—	Minflin	—	—	4.22	—	—
New Berlin	53	—2	27.4	3.82	8.5	Falls City	53	20	38.8	22.02	—	Oil City	—	—	4.80	20.2	—
New Bremen	49	—1	26.1	2.84	—	Forestgrove	54	21	39.0	12.92	—	Ottsville	—	—	7.49	—	—
New Lexington	—	—	—	5.01	6.0	Gardiner	68	29	47.6	19.15	—	Parker	—	—	5.56	16.8	—
New Richmond	62	2	33.6	5.10	5.0	Glenora	53	24	37.8	29.97	4.0	Philadelphia	58	17	34.0	8.11	5.9
New Waterford	55	—2	28.6	6.11	21.5	Government Camp	50 <sup>c</sup>	14 <sup>c</sup>	31.31	18.46	6.79	Pocono Lake	50	—9	23.5	2.66	—
North Lewisburg	52	—6	28.3	3.80	6.0	Grants Pass	65	24	39.7	7.43	0.5	Point Pleasant	—	—	7.03	—	—
North Royalton <sup>c</sup>	53	4	27.0	—	—	Grass Valley	50	—6	28.8	2.30	9.0	Pottsville	57	4	29.2	8.06	14.0
Norwalk	48	5	27.2	3.64	14.5	Heppner	57	18	34.2	3.06	8.5	Quakertown	—	—	29.0	7.10	—
Oberlin	56	—2	29.0	3.17	10.0	Hood River (near)	51	20	32.8	10.57	33.5	Reading <sup>2</sup>	53	6	28.3	4.55	22.7
Ohio State University	61	7	29.5	3.58	9.2	Huntington	57	6	31.0	3.41	23.0	Renovo <sup>a</sup>	—	—	3.75	—	—
Orangeville	55	—11	27.0	3.55	21.0	Jacksonville	64	20	38.1	5.43	1.0	Renovo <sup>b</sup>	—	—	—	—	—
Ottawa	49	2	26.7	2.80	15.8	Joseph	58	3	26.1	2.65	21.5	Saergerstown	53	—11	26.2	4.11	23.8
Pataskala	55	—9	29.4	4.83	10.8	Junction City <sup>1</sup>	62	30	44.4	10.66	—	St. Marys	48	—2	23.2	—	—
Philo	58	6	31.0	4.99	9.1	Kerby	63	21	39.6	18.41	3.0	Saltsburg	—	—	4.69	15.4	—
Plattsburgh	54	0	29.4	3.70	8.0	Klamath Falls	60	6	33.8	3.20	T.	Seisbottsville	—	—	8.51	—	—
Pomeroy	61	14	35.5	3.26	4.2	Lafayette <sup>1</sup>	58	22	40.8	9.21	—	Selinsgrove	56	0	28.4	4.26	11.0
Portsmouth <sup>a</sup>	—	—	—	7.19	4.0	Lagrange	56	9	32.8	8.04	17.5	Shawmont	—	—	6.39	—	—
Portsmouth <sup>b</sup>	63	10	36.2	5.27	4.5	Lakeview	—	—	—	2.38	2.2	Smethport	50	—3	24.2	—	—
Pulse	—	—	—	5.17	9.0	Lonerock	57	11	38.1	2.56	13.5	Smiths Corners	—	—	6.57	—	—
Redlion	—	—	—	8.52	—	McKenzie Bridge	51	18	34.9	15.30	5.5	Somerset	55	4	26.9	6.81	22.8
Richfield	—	—	—	8.98	10.5	McMinnville	56	23	40.0	13.08	1.0	South Bethlehem	52	7	29.0	8.38	19.0
Richwood	56	—4	29.2	8.06	3.2	Merlin	52	26	42.0	8.59	T.	South Eaton	53	1	26.9	6.09	20.0
Ripley	63	3	32.6	5.48	3.2	Mounmouth <sup>b</sup> <sup>1</sup>	54	28	40.2	11.15	—	Spring Mount	—	—	6.35	—	—
Rittman	53	—8	28.0	3.63	9.5	Monroe	58	24	40.6	15.07	—	State College	52	9	27.2	4.82	13.8
Rockyridge	50	3	27.4	4.05	14.6	Mount Angel	58	23	39.7	10.62	—	Sunbury	48	—6	25.8	2.95	18.0
Shenandoah	53	1	27.2	3.23	4.7	Nehalem	—	—	—	25.58	—	Towanda	—	—	3.50	21.0	—
Sidney	51	—1	29.1	3.46	10.6	Newberg	56	20	39.3	10.94	T.	Troutrun	—	—	—	—	—
Somerset	59	7	33.2	3.11	12.6	Newport	57	33	45.0	17.60	—	Uniontown	56	13	34.6	4.75	19.5
Springfield	—	—	—	3.66	—	Pendleton	58	22	36.3	1.57	—	Warren	52	0	25.8	4.57	24.0
Strongsville	—	—	—	2.81	10.0	Pine	52	—15	23.8	4.91	48.0	Wellsboro	52	—2	27.3	5.18	25.0
Swanton	—	—	—	2.76	6.0	Placer	—	—	—	9.57	—	Westchester	58	12	31.2	7.95	6.0
Thurman	62	9	34.6	6.15	—	Prineville	56	19	36.2	1.55	7.5	West Newton	—	—	6.02	8.0	—
Tiffin	48	5	28.2	2.87	13.0	Riddles <sup>1</sup>	60	28	42.4	7.42	—	Wilkesbarre	59	6	29.2	4.95	27.4
Upper Sandusky <sup>c</sup>	54	1	29.8	—	—	Salem <sup>b</sup>	56	19	41.3	7.49	—	Williamsport	57	9	29.0	3.74	16.5
Urbana	51	—5	26.2	3.40	6.6	Sheridan <sup>1</sup>	62	25	42.5	12.55	—	York	66	5	30.0	6.15	14.6
Vanwert	54	4	27.3	3.38	12.0	Silverlake	54	0	32.0	2.16	3.0	Rhode Island	—	—	—	—	—
Vickery	52	3	27.8	2.35	9.8	Silverton <sup>1</sup>	58	20	44.6	11.21	—	Bristol	52	—5	30.6	6.29	21.5
Wadsworth	—	—	—	3.38	—	Siskiyou <sup>1</sup>	54	25	36.4	5.61	19.5	Kingston	54	—12	27.2	8.03	26.0
Walnut	—	—	—	3.78	8.7	Sparta	46	8	28.2	—	—	Narragansett	54	—5	29.4	6.37	26.5
Warren	60	4	28.5	4.46	21.8	Springfield <sup>1</sup>	48	29	40.2	5.60	—	Pawtucket	55	—4	29.0	5.62	18.2
Warsaw	55	4	29.6	4.32	10.0	The Dalles	49	16	34.4	4.00	22.5	Providence <sup>a</sup>	57	—6	30.0	6.40	23.5
Wauseon	50	—1	26.3	3.05	13.8	Toledo	60	29	43.9	16.54	—	Providence <sup>c</sup>	53	—10	27.9	6.00	23.0
Waverly	57	—6	29.6	3.84	5.5	Umatilla	58	25	34.1	0.81	0.1	South Carolina	—	—	—	—	—
Wellington	55	—2	28.4	2.91	13.0	Vale	49	1	27.9	1.38	4.0	Aiken	72	14	48.4	5.10	—
Williamstown	—	—	—	2.35	—	Wamic	51	10	30.4	7.27	38.2	Allendale	72	19	48.8	3.75	—
Willoughby	—	—	—	3.48	15.0	Warm Spring	53	15	33.1	2.34	11.5	Anderson	70	14	44.8	4.32	—
Wooster	60	—5	28.5	4.07	12.0	Weston	61	15	32.3	4.75	12.2	Barksdale <sup>1</sup>	68	14	48.6	4.50	—
Zanesville	—	—	—	4.78	11.0	Williams	70	17	40.4	8.16	2.5	Batesburg	69	11	46.1	5.34	T.
Oklahoma.	—	—	—	—	—	Pennsylvania.	—	—	—	—	—	Bennettsville	72	17	47.5	1.92	—
Burnett	71	14	38.4	2.06	2.6	Aleppo	60	—9	31.8	5.54	10.0	Blackville	73	17	47.5	4.82	—
Chandler	68	12	35.1	2.34	1.0	Altoona	53	4	28.0	5.37	—	Rowman	75	17	47.5	3.33	—
Cleo	70	12	35.6	T.	Athens	49	—5	26.4	2.98	20.0	Calhoun Falls	75	17	47.5	5.82	—	
Clifton	71	18	37.3	2.10	3.0	Beaver Dam	55	1	30.0	5.21	15.5	Camden	—	—	4.28	—	—
Cloud Chief	63	14	36.4	1.32	1.2	Bellefonte	55	—	4.96	—	—	Cheraw <sup>a</sup>	73	17	44.6	4.57	—
Fort Reno	68	16	35.8	2.55	2.5	Brookville	—	—	—	7.20	—	Cheraw <sup>b</sup>	—	—	4.59	—	—
Fort Sill	73	15	38.3	1.87	1.8	Browns	—	—	—	—	—	Clarks Hill	70	11	41.4	5.23	T.
Guthrie	69	11	37.4	1.89	4.4	California	62	12	34.9	4.33	11.5	Clemson College	75	11	40.4	5.35	—
Heunessey	70	12	35.6	1.28	1.0	Cassandra	52	6	27.2	4.16	2.2	Conway	72	18	47.8	6.80	—
Jefferson	70	5	38.7	1.08	1.2	Centerhall	52	0	28.2	—	13.0	Darlington	73	16	46.3	2.58	—
Jenkins	65	10	33.6	1.12	2.0	Clarion	—	—	—	5.99	—	Duewest	66	17	46.4	4.59	—
Kenton	71	4	35.8	0.50	5.0	Coatesville	60	8	31.3	7.73	10.0	Effingham	—	—	4.59	—	—
Kingfisher	72	13	36.9	1.39	0.8	Davis Island Dam	—	—	—	6.23	14.8	Florence	72	19	46.8	4.59	—
Newkirk	66	11	33.3	3.49	T.	Derry Station	68	4	30.7	4.36	15.5	Gaffney	67	16	42.3	5.60	—
Pawhuska	68	10	34.4	2.05	1.0	—	—	—	7.94	—	Georgetown	71	20	49.6	5.60	—	
Perry	70	10	35.3	1.39	2.5	—	—	—	—	—	Gillisonville	75	11	50.4	5.35	—	
Sac and Fox Agency	70	19	36.4	2.05	2.0	Driftwood	48	—11	28.8	4.65	27.1	Greenville	68	14	40.6	6.38	—
Shawnee																	

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
<i>South Dakota—Cont'd.</i>	°	°	°	Ins.	Ins.	<i>Tennessee—Cont'd.</i>	°	°	°	Ins.	Ins.	<i>Texas—Cont'd.</i>	°	°	°	Ins.	Ins.
Alexandria	45	-26	12.0	2.45	13.5	Silverlake	57	9	35.7	2.91	15.3	Sugarland	83	80	56.2	2.86	2.86
Armour	55	-24	12.5	2.75	25.0	Springdale	73	15	40.4	3.52	T.	Sulphur Springs	72	24	45.6	2.98	0.2
Ashcroft	51	-18	17.8	0.25	2.5	Springville	66	11	40.0	8.91	T.	Temple a	74	28	46.2	3.22	
Bowdrie	51	-27	9.2	1.15		Tazewell				4.71	1.5	Trinity	74	28	46.2	2.95	
Brookings	41	-28	10.6	2.52	12.0	Tellico Plains	69	14	43.0	3.92	T.	Tulia	77	27	52.6	1.81	
Canton	47	-17	16.0	1.16	14.0	Tracy City	63	10	37.2	4.71	0.8	Tyler	75	12	38.2	0.70	2.0
Centerville						Trenton	67	12	40.4	10.19	T.	Victoria	80 <sup>b</sup>	35 <sup>b</sup>	58.0 <sup>b</sup>	4.10	
Chamberlain	44	-21	14.8	1.49	17.6	Union City	65	11	39.4	8.48	T.	Waco	78	29	49.4	1.95	
Clark	46	-29	11.9	1.50	12.5	Waynesboro	66	6	39.6	7.00	1.0	Weatherford	74	22	44.0	1.07	1.0
Doland	43	-28	10.7	2.05	13.2	Wildersville	67	13	41.7	9.64		Wichita Falls				1.45	
Elkpoint	45	-15	17.6	2.89	21.2	Yukon	66 <sup>c</sup>	9 <sup>c</sup>	41.1 <sup>c</sup>	5.91							
Fairfax	50	-18	15.6			<i>Texas.</i>						<i>Utah.</i>					
Farmingdale						Albany	70	26	48.7	1.55	T.	Alpine					
Faulkton	46	-23	11.6	1.49	13.5	Alvin						Aneth	55	-2	26.0	1.09	3.0
Flandreau	40	-24	11.6	1.95	12.0	Anna	73	20	43.4	1.60	T.	Blackrock	54	-3	28.2	0.45	5.0
Forestburg	42	-30	9.8	1.83	16.3	Anson						Bluecreek *1	55	7	32.6	1.42	4.0
Fort Meade	70 <sup>t</sup>	-12	24.6 <sup>t</sup>	0.07	1.5	Arthur						Callao	66	0	32.4	0.28	3.0
Gann Valley	41	-20	13.1	2.15	20.5	Austin a	78	30	50.6	4.20		Castledale	48	-8	21.6	0.10	
Gary	40	-26	10.4	1.77	24.0	Ballinger	72	24	45.7	0.24	0.8	Cisco	48	0	28.0	0.40	4.0
Gettysburg	42	-19	11.4	0.84	11.6	Bastrop b	78	31	54.6	8.55		Corinne	52	10	30.9	1.97	6.0
Grand River School	53	-16	15.8	0.06	1.5	Beaumont	78	32	53.5	2.43		Coyote	48	-20	18.5	0.80	8.0
Greenwood	51	-18	18.4	2.50	20.3	Beeville	81	34	57.8	2.68		Deseret	60	2	30.0	0.20	2.0
Highburne						Bigspring	75	19	43.7	0.34	T.	Emery	45	3	24.6	T.	
Hotch City	41	-18	13.8	1.12	17.5	Blance	76	25	50.2	2.36		Farmington	57	12	31.4	1.92	19.1
Howell	48	-27	11.6	1.32	8.1	Boerne *1	71	28	27.7	3.66		Fillmore	69	9	38.6	0.46	
Ipswich	47	-31	10.5	1.10	8.0	Booth						Frisco	57	-8	31.7	0.39	5.0
Kimball	45	-24	14.6	2.06	17.5	Bowie	72	17	41.7	1.60	0.8	Giles	53	-11	19.0	0.29	2.9
Leola	40	-35	8.4	1.00	10.0	Brazoria	81	32	57.4	3.46		Government Creek	53	5	30.3	0.72	6.5
Leslie	54	-20	13.4	1.97	14.2	Brenham	76	31	52.8	1.70		Green River	51	-15	17.6	0.52	5.2
Marion	47	-20	15.0	2.10	10.0	Brighton	77	32	59.7	3.42		Grover	58	-2	26.4	0.30	3.0
Mellette	41	-30	11.7	1.11	9.0	Burnet	75	25	47.6	2.24		Heber	50	-6	24.4	1.04	
Menno	59	-19	13.6	1.99	13.8	Camp Eagle Pass	80	27	55.4	3.00		Henefer	54	-15	22.4	1.61	11.2
Millbank	50	-30	13.8	1.60	11.0	Childress	74	19	40.0	0.76	2.0	Hite	66	7	38.2	0.20	T.
Mitchell	46	-25	13.1	2.12	14.5	Coleman	81	24	47.8	0.65		Huntaville					
Oelrichs	45	-9	20.2	1.41	14.1	College Station	78	26	52.0	1.15		Kanab					
Pedro	54	-20	13.9	1.39	15.0	Colorado	76	17	42.6	0.17	T.	Kelton	48	2	28.9	0.90	8.0
Pine Ridge	50 <sup>m</sup>	6	21.8 <sup>m</sup>	0.88	17.5	Columbia	79	32	56.8	3.39		La Sal	55	0	26.6		
Plankinton	44	-23	14.8	1.68	16.0	Comanche	77 <sup>d</sup>	22 <sup>d</sup>	47.0 <sup>d</sup>	0.68	T.	Levan	50	3	26	1.72	13.5
Ramsey	42	-22	11.4	1.70	9.5	Corsicana	75	26	49.6	2.30		Los	47	-25	14.0 <sup>e</sup>	0.65	6.0
Redfield	41	-30	10.1	1.27	9.0	Cotulla	76	33	55.0	2.25		Manti	54	0	25.5	0.86	7.0
Rosebud	48	-9	18.4	1.90	21.8	Cuero	78	34	57.1	1.26		Marysville	56	-8	25.6	0.63	6.5
Silver City						Dallas	77	23	44.8	1.82	1.2	Meadowville	48	3	24.6	1.80	5.0
Sioux Falls	43	-20	18.8	1.66	12.0	Danevang	80	31	56.0	5.55		Millville	59	7	30.6		
Sisseton Agency	39	-26	11.6	1.68	16.8	Dublin	74	24	44.3	0.70		Minersville	59	7	30.6		
Spearfish	61	-8	25.6	1.37	20.0	Duval	83	31	51.8	3.57		Moab	53	3	28.7	0.40	3.0
Tyndall	50	-25	15.8	1.22		Estelle	76	22	45.0	1.54	2.0	Monticello	39	5	22.6	0.49	6.3
Vermillion	40	-18	15.6	1.71	15.0	Fort Clark	72	27	48.0	2.75	T.	Mount Nebo J.	58	7	27.0	1.25	
Watertown	42	-26	9.8	1.05	10.5	Fort Davis	71	18	45.2	T.	Mount Pleasant	48 <sup>a</sup>	3	24.9 <sup>a</sup>	1.32	10.0	
Waubay	35	-26	9.4	1.15	8.1	Fort McIntosh	80	36	59.2	1.34		Ogden a	53	9	31.2	1.96	6.5
Wentworth	40	-24	10.6	2.19	15.7	Fort Ringgold	86	37	62.8	0.00		Parowan	56	2	29.0	1.03	10.3
Wolsey						Fredericksburg	75 <sup>c</sup>	27 <sup>c</sup>	48.6 <sup>c</sup>	1.77		Pinto	59 <sup>c</sup>	9 <sup>c</sup>	26.4 <sup>c</sup>	0.70	
<i>Tennessee.</i>						Gainesville	69	19	41.2	2.14	1.0	Pisteau	52	-20	22.2	1.35	19.9
Andersonville	62	14	39.0	4.92	T.	Gatesville	75	26	49.4	1.62		Provo	60	7	32.8	1.28	
Ashwood	67	10	40.0	4.71		Georgetown	80	26	52.5	3.11		Ranch	55	-10	23.3	1.66	16.6
Benton	70	15	41.6	3.97	T.	Grapevine	75	21	45.0	1.35	1.5	Richfield	59	2	29.4	0.47	4.7
Bluff City						Greenville	74	23 <sup>d</sup>	42.7	2.90		St. George	64	8	36.5	0.39	T.
Bolivar	65	12	40.2	10.41		Hale Center	72	19	46.2	1.25	0.2	Scipio	59	0	30.9	0.47	T.
Bristol	60	11	36.2	2.11	T.	Hallettsville	78	32	55.8	2.41		Snowville	50	-5	25.4	0.90	
Byrdstown	64	13	88.4	6.34	1.2	Haskell	77	21	42.6	0.82	0.5	Thistle	53	-8	26.6	1.45	8.0
Carthage	65	13	38.6	6.05	0.3	Henrietta	75	17	41.5	1.24	0.2	Tooele	57	12	32.2	0.58	
Charleston						Hewitt						Tropic	49	-13	20.8	0.46	11.0
Clarksville	66	11	38.8	9.45	1.0	Hondo						Vernal	50	-9	20.0	0.97	4.8
Clinton						Houston	79	33	58.9	2.88		Wellington	49	-7	24.2	0.25	2.5
Covington	64	13	41.4	6.40		Huntsville	75	30	51.2	2.15		Woodruff	57	-20	16.5	0.20	2.0
Decatur	68	12	40.9	6.44	0.5	Ira	78	17	45.0	0.48	2.0	<i>Vermont.</i>					
Dickson	66	9	39.6	10.10		Jacksonville	72	26	50.4	2.01		Bellows Falls					
Dover	65	12	38.8	7.54		Jasper	80	29	57.0	3.64		Burlington	42	-10	22.2	1.62	8.5
Elizabethton	66	13	38.0	1.57	0.1	Junction						Chelsea	41	-20	16.3	3.87	28.0
Erasmus	63	8	37.4	5.33	1.4	Kaufman	73	24	46.8	2.79	1.0	Cornwall	48	-16	21.4	1.44	9.0
Florence	66	10	40.0	5.53	T.	Kent						Enosburg Falls	45	-20	15.8	2.40	20.0
Franklin	65	11	40.0	7.53	2.5	Kerrville	85	24	51.4	2.80		Hartland	48	-20	18.6	5.48	34.0
Grace *1	70	16	40.8	5.70		Kopperl						Jacksonville	40	-24	20.6	2.82	
Greenville	64	11	38.8	1.80	0.1	Lampassas	77	24	47.2	1.88		Manchester	45	-22	20.6	5.30	26.6
Hohenwald	67	5	38.6	9.49	3.5	Laureles Ranch						Morrisville	44	-22	16.9	6.71	24.4
Iron City	67	7	40.0	7.71		Liano	76	30	49.0	2.50		Newport	43	-26			

TABLE II.—Climatological record of voluntary and other cooperating observers—Continued.

Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.		Stations.	Temperature. (Fahrenheit.)			Precipita- tion.	
	Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.		Maximum.	Minimum.	Mean.	Rain and melted snow.	Total depth of snow.
Virginia—Cont'd.						West Virginia—Cont'd.						Wyoming—Cont'd.					
Fredericksburg	63	15	36.3	4.47	T.	Cuba	61	1	34.6	5.81	5.0	Border	45	-85	9.2	0.90	7.9
Grahams Forge	59	14	38.8	3.20	2.6	Dayton	63	8	33.5	6.88	10.5	Buffalo	56	-6	25.2	0.25	2.5
Hampton	67	21	43.2	3.21	0.5	Echo	65	12	37.6	7.80	2.0	Centennial	55	-15	26.0	1.38	...
Hot Springs	58	12	36.0	3.00	4.0	Elkhorn	62	10	38.6	2.72	4.4	Chugwater	60	1	28.6	1.75	17.5
La Crosse	68	13	40.8	3.20	T.	Fairmont	65	11	33.4	7.29	9.8	Daniel	46	-23	14.2	1.55	15.5
Lexington	66	14	36.8	2.71	1.8	Glenville	61	9	33.4	6.86	16.0	Evanston	50	-12	20.8	0.84	6.5
Lincoln	56	12	33.0	4.17	2.0	Grafton	61	9	32.4	6.86	...	Fort Laramie	62	-3	27.0	0.68	11.5
Manassas	56	13	34.2	4.44	2.0	Green Sulphur	65	9	32.2	2.01	...	Fort Washakie	63	-5	23.1	0.06	0.5
Mendota	56	13	33.8	4.44	T.	Hinton b	65	13	36.7	3.30	3.6	Fort Yellowstone	45	-5	22.8	0.85	8.5
Newport News	68	15	42.6	3.80	T.	Huntington	61	13	35.8	6.46	2.0	Fourbear	55	-5	26.0	0.33	5.7
Petersburg	68	17	40.0	3.32	T.	Josiah	61	9	32.8	6.64	11.0	Griggs	57	-15	23.5	1.19	12.0
Radford						Leonard	55	5	30.1	4.56	6.0	Hyattsville	60	-3	27.7	0.50	5.0
Riverton						Lewisburg	55	8	32.9	8.94	3.0	Irma	60	0	31.0	0.90	9.0
Rockymount	58	14	35.0	5.41	T.	Lillydale	62	11	36.2	2.69	3.3	Iron Mountain	54	3	28.8	1.43	14.8
Saxe	65	13	38.8	3.65	T.	Logan	66	15	40.3	5.77	2.0	Laramie	52	-8	24.0	0.89	11.5
Shenandoah						Magnolia	60	5	31.1	3.95	8.0	Leo	46	-15	20.0	1.51	80.0
Speers Ferry						Martinsburg	59	9	30.8	8.25	7.0	Lolabana Ranch	49	-15	20.8	0.63	8.0
Spottsville	67	14	40.9	4.32	0.5	Morgantown	60	9	33.2	6.12	17.0	Lusk	47	-5	20.6	1.32	13.2
Stanton	67	15	36.8	3.58	3.0	Moscow	58	1	30.3	2.95	12.0	Moore	57	9	28.8	1.08	26.2
Warsaw	65	11	37.4	4.16	1.0	Nuttallburg	62	13	38.4	3.95	10.0	Pinebluff	57	1	26.1	1.80	18.0
Wilkinson	68	15	37.5	5.32	T.	Oldfields	65	6	33.5	4.80	7.5	Rawlins	52	-8	24.2	2.11	21.1
Williamsburg	68	12	40.5	3.07	1.0	Philippe	61	7	33.4	7.84	15.8	Rocksprings	46	-16	...	0.24	2.5
Woodstock	65	13	38.2	3.93	5.0	Pickens	57	4	31.6	9.95	33.5	Saratoga	56	-9	24.8	1.40	14.0
Wytheville	68	10	36.2	2.42	3.5	Point Pleasant	63	10	32.5	6.38	3.0	South Pass City	42	-13	13.8	0.40	4.0
Washington.						Princeton	59	16	36.0	4.30	10.5	Thermopolis	63	-13	25.0	0.30	3.0
Aberdeen	47	29	38.0	18.95	T.	Romney	58	8	33.2	8.87	11.0	Wheatland	54	6	25.3		
Anacortes						Rowlesburg						Porto Rico.					
Ashford						Ryan	64	12	36.0	6.17	7.0	Adjuntas	90	54	70.4	6.98	
Blaine	59	23	39.0	6.56	3.0	Southside	62	16	36.6	6.48	4.0	Aguadilla	90	63	76.4	4.02	
Bremerton	52	27	38.4	13.01	10.0	Terra Alta	54	-1	28.6	8.85	18.0	Aguirre	88	64	77.5	2.40	
Cedonia	43	8	25.2	2.43	16.1	Travellers Repose	55	-2d	30.1 <sup>a</sup>	3.91	11.0	Arecibo	87	59	78.5	5.50	
Centralia	61	30	40.5	11.55	1.5	Uppertract	63	9	35.2	3.14	6.0	Barros	85	53	69.7	2.20	
Cheney						Wellsburg.	56	5	30.0	5.11	17.0	Caguas	92	57	72.4	4.25	
Clearwater	54	30	39.8	20.15	2.5	Weston a	65	10	36.4	7.34	13.4	Canovanas	86	58	77.4	6.59	
Cle Elum	43	3	25.2	7.77	65.5	Weston b						Caye	91	59	74.2	3.31	
Colfax	49	19	33.0	8.04	5.0	Wheeling a	62	11	35.2	4.71	0.5	Cidra	89	52	72.3	7.80	
Colville	45	6	28.0	3.10	21.0	Wheeling b	70	12	37.4	4.28	0.5	Carozal	92	55	78.1	7.15	
Conconully	44	3	22.9	2.45	23.3	Williamson	70	12	37.4	4.28	0.5	Fajardo	86	66	76.7	4.47	
Coupeville	55	29	40.9	2.89	0.5	Wisconsin.						Guanica	91	61	77.0	3.58	
Crescent	44	12	27.5	2.83	18.0	Amherst	43					Guyama				1.59	
East Sound	55	16	35.8	6.52	T.	Appleton	44	-6	19.9	2.81	15.6	Hacienda Coloso	89	60	74.6	3.72	
Ellensburg	44	1	23.5	3.24	32.2	Ashland						Hacienda Perla	90	67	76.6	12.01	
Ellensburg (near)	42	2	28.4	3.40	32.0	Barron						Humacao	88	72	79.5	4.29	
Grandmound	55	28	39.8	14.94	3.0	Bayfield	36	-5	17.6	2.04	...	Isabela	85	64	74.6	7.07	
Granite Falls						Beloit	47	-13	18.8	2.04	...	Juana Diaz	91	64	77.6	3.27	
Hilburn	52	29	38.4	22.45	1.2	Brookhead	52	-10	21.0 <sup>a</sup>	2.81	8.0	La Isolina	88	64	72.4	7.46	
Hooper	53	22	33.6	2.91	3.3	Butternut	39	-20	13.0	1.51	15.1	Las Marias	90	64	76.2	8.93	
Iiwaco	54	29	42.2	17.61	T.	Chilton	41	-15	18.4	3.18	13.5	Manati	91	62	75.4	4.45	
La Center	55	22	37.8	12.32		Darlington	42	-18	16.8	1.91	8.0	Maunabo	87	65	76.7	5.30	
Lakeside	46	14	26.2	3.98	36.0	Dodgeville	50	-11	18.2	1.80	18.0	Mayaguez	90	62	75.8	4.48	
Lind	46	17	30.4	2.49	15.5	Downing	42	-20	15.9	3.61	22.0	Morovis	89	59	74.7	1.96	
Loomis.	45	9	24.0	2.70	21.0	Easton	44	-15	18.3	2.34	11.5	Ponce	89	65	76.6	2.25	
Mayfield	53 <sup>d</sup>	28	38.6	14.87		Eau Claire	40	-15	17.2	3.05	19.0	Rio Piedras				5.76	
Mettinger Ranch	50	25	34.8	1.01	1.5	Florence	38 <sup>d</sup>	-5	18.1	1.68	13.0	San German	88	65	76.0	12.84	
Mount Pleasant	45	27	35.8	11.39	4.4	Fond du Lac	42	-6	23.5	1.62	0.5	San Lorenzo	89	59	73.9	6.46	
Moxee	48	3	27.0	1.89	13.7	Grand River Locks.						San Salvador	85	61	71.2	7.20	
Oiga	55	32	41.6	6.69		Grantsburg	37	-28	13.4	2.68	19.0	Santa Isabel	87	64	76.0	5.84	
Olympia	56	30	40.8	14.04	2.0	Hancock	39	-12	18.2	1.82	12.7	Utuado	89	60	74.6	4.68	
Pinehill	50	14	32.0	7.72	40.4	Harvey	41	-7	21.2	1.94	8.8	Yauco	85	65	75.0	3.74	
Pomeroy	59	18	33.6	2.82	5.0	Hayward	38	-18	15.0	2.33	20.2	Mexico.					
Port Townsend	53	31	41.4	3.10	18.0	Hillsboro	42	-19	17.0	2.85	19.0	Ciudad P. Diaz	71	33	52.4	2.60	
Pullman	48	13	31.2	2.92		Koepenick	42	-18	17.8	1.60	16.0	Coatzacoalcos	88	56	71.8	9.69	
Rattlesnake Mountains.	47	11	28.4	2.14	9.5	Ladysmith	37	-15	15.4	2.36	21.2	Leon de Aldamas	75	38	56.8	0.80	
Republic	64	4	24.8	2.75	15.6	Lancaster	48	-15	18.4	1.91	10.0	Vera Cruz.	80	60	72.0		
Ritzville						Madison	40	-5	20.7	1.84	5.8	New Brunswick.					
Rosalia.	50	15	30.4	3.00	16.0	Manitowoc	42	-2	24.6	2.43	7.0	St. John.	50	-14	21.2	6.88	34.3
Sedro.	59	25	39.3	6.62	T.	Meadow Valley	43	-14	17.6	1.66	10.0	Isthmus of Panama.					
Silvana.	56	27	40.2	4.74		Medford	42	-13	18.2	0.70	7.0	Alajuela.	92	69	81.0	4.58	
Snohomish	51	26	38.0	7.45		Menasha						La Boca.	88	72	79.5	2.84	
Snoqualmie	50	28	40.6	10.45		Neillsville	40	-12	17.6	3.05	12.0	San Pedro de Macoris, S. D.	88	62	74.8	4.67	
Southbend	58	30	42.4	22.39		New Holstein	41	-8	20.1	2.90	10.0						
Sprague						New London	40	-8	19.4	2.38	8.0						
Stampede.						North Crandon	38	-10	17.0	0.65	6.5						
Sunnyside.	53	14	30.9	1.11	4.5	Oconto	41	-9	21.8	2.50	17.5						
Trinidad	54	11	26.1	3.10	23.2	Oscoda.	38	-28	13.8	2.11	23.3			</			

TABLE II.—*Climatological record of voluntary and other cooperating observers*—Continued.

## **EXPLANATION OF SIGNS.**

\*Extremes of temperature from observed readings of dry thermometer.

A numeral following the name of a station indicates the hours of observation from which the mean temperature was obtained, thus:

- <sup>1</sup>Mean of 7 a. m. + 2 p. m. + 9 p. m. + 9 p. m. + 4.  
<sup>2</sup>Mean of 8 a. m. + 8 p. m. + 2.  
<sup>3</sup>Mean of 7 a. m. + 9 p. m. + 2.  
<sup>4</sup>Mean of 6 a. m. + 6 p. m. + 2.  
<sup>5</sup>Mean of 7 a. m. + 2 p. m. + 2.

\* Mean of readings at various hours reduced to true daily mean by special tables.

The absence of a numeral indicates that the mean temperature has been obtained from daily readings of the maximum and minimum thermometers.

An italic letter following the name of a station, as "Livingston *a*," "Livingston *b*," indicates that two or more observers, as the case may be, are reporting from the same station. A small roman letter following the name of a station, or in figure columns, indicates the number of days missing from the record; for instance "*a*" denotes 14 days missing.

## CORRECTIONS.

November, 1902, Iowa, Idagrove, strike out precipitation  
0.21 and snowfall 1.0.

TABLE III.—Resultant winds from observations at 8 a. m. and 8 p. m., daily, during the month of December, 1902.

Stations.	Component direction from—						Stations.	Component direction from—						Resultant.	
	N.	S.	E.	W.	Direction from—	Duration.		N.	S.	E.	W.	Direction from—	Duration.		
<i>New England.</i>							<i>Upper Mississippi Valley.</i>								
Eastport, Me.	Hours.	Hours.	Hours.	Hours.	o	Hours.	St. Paul, Minn.	Hours.	Hours.	Hours.	Hours.	o	Hours.		
Portland, Me.	27	9	7	33	n. 55 w.	32	19	16	17	24	n. 67 w.	8			
Concord, N. H.	28	15	4	31	s. 64 w.	30	12	13	4	7	s. 72 w.	3			
Northfield, Vt.	14	6	7	12	n. 32 w.	9	16	16	15	25	w.	10			
Boston, Mass.	19	35	3	14	s. 34 w.	19	22	18	18	22	p. 45 w.	6			
Nantucket, Mass.	23	10	5	36	n. 67 w.	34	21	19	16	23	n. 74 w.	7			
Block Island, R. I.	22	5	11	32	n. 51 w.	27	23	22	12	21	n. 84 w.	9			
New Haven, Conn.	26	10	13	27	n. 41 w.	21	21	23	16	18	s. 45 w.	3			
	33	9	5	29	n. 45 w.	34	19	18	14	27	p. 86 w.	13			
<i>Middle Atlantic States.</i>							Hannibal, Mo. †	11	9	7	10	n. 56 w.	4		
Albany, N. Y.	27	20	4	24	n. 71 w.	21	St. Louis, Mo. †	19	25	10	21	s. 61 w.	12		
Binghamton, N. Y. †	18	5	8	14	n. 37 w.	10	Columbia, Mo. *	11	11	8	9	w.	1		
New York, N. Y.	23	6	10	38	n. 59 w.	33	Kansas City, Mo.	23	24	13	19	s. 80 w.	6		
Harrisburg, Pa.	18	9	18	25	n. 38 w.	11	Springfield, Mo.	18	22	14	23	s. 66 w.	10		
Philadelphia, Pa.	26	11	12	28	n. 43 w.	22	Topeka, Kans.	9	8	7	7	p. 1	1		
Scranton, Pa.	22	18	13	25	n. 72 w.	13	Lincoln, Neb.	26	22	10	22	p. 72 w.	13		
Atlantic City, N. J.	30	9	10	31	n. 45 w.	30	Omaha, Nebr.	24	23	10	16	p. 80 w.	6		
Cape May, N. J.	27	10	9	29	n. 50 w.	26	Valentine, Nebr.	21	13	6	11	n. 63 w.	18		
Baltimore, Md.	24	14	8	28	n. 63 w.	22	Sioux City, Iowa †	18	9	6	11	n. 51 w.	5		
Washington, D. C.	25	21	6	21	n. 75 w.	16	Pierre, S. Dak.	22	11	26	13	n. 50 e.	17		
Lynchburg, Va.	20	17	10	32	n. 82 w.	22	Huron, S. Dak.	27	20	20	13	n. 45 e.	10		
Norfolk, Va.	25	20	13	19	n. 50 w.	8	Yankton, S. Dak. †	13	6	8	14	n. 41 w.	9		
Richmond, Va.	23	20	11	20	n. 72 w.	10									
Wytheville, Va.	14	9	11	39	n. 80 w.	23									
<i>South Atlantic States.</i>															
Asheville, N. C.	29	20	14	13	n. 6 e.	9	Havre, Mont.	21	14	19	28	n. 52 w.	11		
Charlotte, N. C.	22	18	22	16	n. 56 e.	7	Miles City, Mont.	21	27	10	19	s. 56 w.	11		
Hatteras, N. C. †	33	13	11	19	n. 22 w.	22	Helena, Mont.	18	25	11	25	s. 63 w.	16		
Kitty Hawk, N. C. †	13	8	10	9	n. 11 e.	5	Kalispell, Mont.	9	9	4	47	w.	43		
Raleigh, N. C.	26	17	13	20	n. 38 w.	11	Rapid City, S. Dak.	25	8	11	33	n. 52 w.	28		
Wilmington, N. C.	25	12	15	21	n. 25 w.	14	Cheyenne, Wyo.	19	14	4	38	n. 82 w.	34		
Charleston, S. C.	24	11	15	22	n. 21 w.	19	Lander, Wyo.	20	24	17	15	s. 27 e.	4		
Columbia, S. C.	22	15	20	21	n. 8 w.	7	North Platte, Nebr.	15	15	15	29	w.	14		
Augusta, Ga.	24	12	15	25	n. 40 w.	16									
Savannah, Ga.	34	9	16	17	n. 2 w.	25	Denver, Colo.	21	29	10	12	s. 14 w.	8		
Jacksonville, Fla.	30	15	10	23	n. 41 w.	20	Pueblo, Colo.	25	18	19	22	s. 14 w.	12		
<i>Florida Peninsula.</i>							Concordia, Kans.	22	18	10	18	s. 63 w.	9		
Jupiter, Fla.	20	11	18	22	n. 24 w.	10	Dodge, Kans.	27	13	13	21	n. 30 w.	16		
Key West, Fla.	33	7	33	4	n. 48 e.	39	Wichita, Kans.	28	21	15	13	n. 16 e.	7		
Tampa, Fla.	31	10	18	21	n. 9 w.	20	Oklahoma, Okla.	25	24	13	10	n. 72 w.	3		
<i>Eastern Gulf States.</i>															
Atlanta, Ga.	27	16	13	28	n. 54 w.	19	Abilene, Texas.	22	23	11	17	s. 80 w.	6		
Macon, Ga. †	15	6	4	11	n. 38 w.	11	Amarillo, Tex.	16	24	13	25	s. 56 w.	14		
Pensacola, Fla. †	16	4	10	7	n. 14 e.	12									
Mobile, Ala.	34	16	8	14	n. 12 w.	29	<i>Southern Plateau.</i>								
Montgomery, Ala.	25	11	22	16	n. 23 e.	15	El Paso, Texas.	29	1	14	31	n. 59 w.	33		
Meridian, Miss. †	10	9	14	6	n. 33 e.	8	Santa Fe, N. Mex.	34	13	22	7	n. 35 e.	26		
Vicksburg, Miss.	20	22	24	13	n. 80 e.	11	Flagstaff, Ariz.	23	12	21	21	p. 11	11		
New Orleans, La.	28	15	22	9	n. 45 e.	18	Phoenix, Ariz.	13	12	24	24	n. 1	1		
<i>Western Gulf States.</i>							Yuma, Ariz.	44	5	15	7	n. 11 e.	40		
Shreveport, La.	21	20	22	16	n. 80 e.	6	Independence, Cal.	22	18	10	29	n. 78 w.	19		
Fort Smith, Ark.	12	9	27	23	n. 53 e.	5									
Little Rock, Ark.	19	18	15	24	n. 84 w.	9	<i>Middle Plateau.</i>								
Corpus Christi, Tex.	29	19	21	5	n. 58 e.	19	Carson City, Nev.	13	30	12	20	s. 25 w.	19		
Galveston, Tex.	20	16	29	11	n. 77 e.	18	Winnebago, Nev.	19	14	21	23	n. 22 w.	5		
Palestine, Tex.	23	20	18	14	n. 53 e.	5	Modena, Utah.	14	14	14	33	w.	19		
San Antonio, Tex.	25	18	20	13	n. 45 e.	10	Salt Lake City, Utah.	20	19	22	14	n. 83 e.	8		
Taylor, Tex. †	16	9	4	7	n. 23 w.	8	Grand Junction, Colo.	20	15	23	21	n. 22 e.	5		
<i>Ohio Valley and Tennessee.</i>															
Chattanooga, Tenn.	25	14	15	24	n. 39 w.	14	Baker City, Oreg.	5	33	24	15	s. 15 e.	34		
Knoxville, Tenn.	24	14	2	37	n. 74 w.	36	Boise, Idaho.	12	22	21	21	s. 41 e.	32		
Memphis, Tenn.	20	21	16	18	n. 63 w.	2	Lewiston, Idaho †	3	6	15	7	s. 69 e.	3		
Nashville, Tenn.	20	23	15	19	n. 68 w.	4	Pocatello, Idaho.	1	25	34	13	s. 54 e.	26		
Lexington, Ky. †	6	14	9	12	n. 21 w.	8	Spokane, Wash.	14	25	24	9	s. 54 e.	19		
Louisville, Ky.	14	24	13	25	n. 50 w.	16	Walla Walla, Wash.	8	35	3	25	s. 39 w.	35		
Evansville, Ind. †	11	12	7	11	n. 76 w.	4									
Indianapolis, Ind.	14	27	10	24	n. 47 w.	19	<i>North Pacific Coast Region.</i>								
Cincinnati, Ohio.	12	22	17	28	n. 48 w.	15	North Head, Wash.	7	25	33	13	s. 48 e.	27		
Columbus, Ohio.	10	26	15	25	n. 32 w.	19	Port Crescent, Wash. *	0	17	13	11	s. 7 e.	17		
Pittsburg, Pa.	24	17	14	29	n. 65 w.	17	Seattle, Wash.	10	31	33	4	s. 54 e.	36		
Parkersburg, W. Va.	16	20	12	28	n. 76 w.	16	Tacoma, Wash.	18	37	8	17	s. 21 w.	26		
Elkins, W. Va.	14	20	6	30	n. 76 w.	25	Tatoosh Island, Wash.	7	24	22	18	s. 13 e.	18		
<i>Lower Lake Region.</i>							Astoria, Oreg.	12	18	33	11	s. 75 e.	23		
Buffalo, N. Y.	12	14	16	30	s. 82 w.	14	Portland, Oreg.	12	24	23	16	s. 30 e.	14		
Oswego, N. Y.	21	26	17	15	s. 22 e.	5	Roseburg, Oreg.	9	29	17	20	s. 9 w.	20		
Rochester, N. Y.	11	20	13	32	s. 65 w.	21	Eureka, Cal.	14	34	15	12	s. 9 e.	9		
Syracuse, N. Y.	13	24	12	26	s. 52 w.	18	Mount Tamalpais, Cal.	20	20	15	24	w.	9		
Eric, Pa.	18	19	10	27	s. 87 w.	17	Red Bluff, Cal.	30	20	15	11	s. 22 e.	11		
Cleveland, Ohio.	11	29	17	19	s. 6 w.	18	Sacramento, Cal.	17	24	28	10	s. 69 e.	19		
Sandusky, Ohio. †	7	10	7	15	s. 69 w.	8	San Francisco, Cal.	26	13	11	24	n. 45 w.	18		
Toledo, Ohio.	14	25	11	29	s. 59 w.	21									
Detroit, Mich.	16	16	11	30	w.	19	<i>South Pacific Coast Region.</i>								
<i>Upper Lake Region.</i>							Fresno, Cal.	18	8	29	18	n. 48 e.	16		
Alpena, Mich.	22	14	13	27	n. 60 w.	16	Los Angeles, Cal.	23	7	23	23	n.	16		
Escanaba, Mich.	26	14	8	30	n. 61 w.	25	San Diego, Cal.	31	7	18	18	n.	24		
Grand Haven, Mich.	21	14	18	21	n. 28 w.	8	San Luis Obispo, Cal.	33	13	1	18	n. 40 w.	26		
Houghton, Mich. †	10	6	15	9	n. 56 e.	7									
Marquette, Mich. †	20	15	11	30	n. 75 w.	20	Colon, Columbia, S. A. †	6	4	24	3	n. 35 e.	21		
Port Huron, Mich.	14	21	15	28	s. 62 w.	15	Grand Turk, Turks Island †	21	23	13	24	s. 80 w.	11		
Sault Ste. Marie, Mich.	19	15	25	16	n. 66 e.	10	Hamilton, Bermuda.	24	4	35	5	n. 56 e.	36		
Chicago, Ill.	15	20	14	27	s. 69 w.	14	Havanna, Cuba.								
Milwaukee, Wis.	15	13	14	33	n. 84 w.	19	Kingston, Jamaica.								
Green Bay, Wis.	22	21													

TABLE IV.—*Thunderstorms and auroras, December, 1902.*

States.	No. of stations.																														Total.	No.	Days.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Alabama .....	52	T.	2	1												8	2			1									1	1	1	2	19	9	T.
Arizona .....	56	T.																	4	2											0	0	2	A.	
Arkansas .....	57	T.	2									1	7	1	18	5					2										31	7	T.		
California .....	187	T.	1									6	3	1			3	1		3										0	0	8	A.		
Colorado .....	81	T.																														0	0	0	T.
Connecticut .....	21	T.																														1	1	0	T.
Delaware .....	5	T.																														0	0	0	T.
Dist. of Columbia .....	4	T.																														0	0	0	T.
Florida .....	47	T.	5	5	9	1							5			1															26	6	A.		
Georgia .....	55	T.	5	1	3																											10	4	T.	
Idaho .....	34	T.	1									2																			3	0	0	A.	
Illinois .....	92	T.	1									11								11	1										24	4	A.		
Indiana .....	58	T.									1	3	7							10										21	4	T.			
Indian Territory .....	11	T.											2																		2	1	1	T.	
Iowa .....	149	T.	1																	3											4	2	T.		
Kansas .....	77	T.																	1												1	1	1	A.	
Kentucky .....	41	T.										2	6	11	7																26	0	A.		
Louisiana .....	46	T.	6	6	5	8	1					1	1	5	14	1	1	1											45	12	T.				
Maine .....	19	T.																													0	0	0	T.	
Maryland .....	48	T.			1														3	3											1	1	0	T.	
Massachusetts .....	48	T.																													6	0	0	T.	
Michigan .....	106	T.																													0	0	0	A.	
Minnesota .....	67	T.																													0	0	0	T.	
Mississippi .....	44	T.	4	1															16												22	0	4	T.	
Missouri .....	95	T.										20	2	1						1	16										39	5	T.		
Montana .....	40	T.											1																		0	0	0	T.	
Nebraska .....	142	T.	1	1	1														1												1	2	2	T.	
Nevada .....	40	T.																	1												2	4	4	A.	
New Hampshire .....	19	T.																													0	0	0	A.	
New Jersey .....	51	T.																													0	0	0	T.	
New Mexico .....	31	T.																		1	1										2	0	2	T.	
New York .....	99	T.		2																	2										4	2	2	T.	
North Carolina .....	56	T.	3	2																											8	4	0	T.	
North Dakota .....	48	T.																													0	0	0	T.	
Ohio .....	128	T.																													7	2	2	T.	
Oklahoma .....	23	T.																	2	2											4	0	2	A.	
Oregon .....	74	T.										4	4																		10	3	3	T.	
Pennsylvania .....	91	T.																													0	0	0	T.	
Rhode Island .....	7	T.																													0	0	0	T.	
South Carolina .....	46	T.	2	4	2	5																										13	4	0	T.
South Dakota .....	56	T.																													0	0	0	T.	
Tennessee .....	56	T.			2											2	2	3												7	3	3	A.		
Texas .....	95	T.	1	5								1	2	1	6															21	11	0	A.		
Utah .....	47	T.	1									1																		2	2	0	A.		
Vermont .....	16	T.																													0	0	0	A.	
Virginia .....	50	T.																	2											4	2	2	T.		
Washington .....	64	T.																													8	3	3	T.	
West Virginia .....	43	T.																													0	0	0	T.	
Wisconsin .....	60	T.																													0	0	0	T.	
Wyoming .....	31	T.																													0	0	0	A.	
Summ .....	2,893	T.	14	36	17	22	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	386	118	T.			
		A.	0	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	15	A.			

TABLE V.—Accumulated amounts of precipitation for each 5 minutes, for storms in which the rate of fall equaled or exceeded 0.25 in any 5 minutes, or 0.75 in 1 hour during December, 1902, at all stations furnished with self-registering gages.

Stations.	Date.	Total duration.		Total amount of precipitation.	Excessive rate.		Amount before excessive rain.	Depths of precipitation (in inches) during periods of time indicated.													
		From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
Albany, N. Y.	1	2	3	4	5	6	7												*		
Alpena, Mich.	2-3			0.71														0.19			
Asheville, N. C.	4			0.63														0.67			
Atlanta, Ga.	15-16			2.32																	
Atlantic City, N. J.	21-22	6:00 p. m.	D. N.	1.93	9:22 p. m.	10:36 p. m.	0.21	0.07	0.17	0.25	0.31	0.38	0.49	0.58	0.69	0.82	0.97	1.10	1.42		
Augusta, Ga.	12			0.70														0.40			
Baltimore, Md.	2-3			0.96														0.25			
Binghamton, N. Y.	15-16			0.63														*			
Bismarck, N. Dak.	10			0.08														*			
Block Island, R. I.	25-26			1.44														*			
Boise, Idaho	7			0.25														0.08			
Boston, Mass.	21-22			1.24														0.26			
Buffalo, N. Y.	2-3			0.46														0.13			
Cairo, Ill.	12	1:15 p. m.	10:30 p. m.	1.07	9:00 p. m.	9:30 p. m.	0.36	0.08	0.35	0.47	0.52	0.59	0.64	0.66	0.63	0.72	0.82	0.94	1.46		
Charleston, S. C.	4	12:25 a. m.	11:26 a. m.	2.87	8:55 a. m.	10:10 a. m.	1.24	0.05	0.12	0.24	0.31	0.39	0.42	0.56	0.63	0.72		0.32			
Charlotte, N. C.	21			0.75														0.30			
Chattanooga, Tenn.	2			0.81														*			
Chicago, Ill.	19-20			0.49														*			
Cincinnati, Ohio	2			0.98														0.42			
Cleveland, Ohio	15-16			0.62														*			
Columbia, Mo.	2			0.55														0.28			
Columbus, S. C.	12	10:07 a. m.	4:30 p. m.	1.51	3:10 p. m.	3:40 p. m.	0.79	0.06	0.15	0.30	0.47	0.58	0.67	0.69	0.71			0.22			
Corpus Christi, Tex.	7			0.40														0.32			
Davenport, Iowa	2-3			0.59														*			
Denver, Colo.	13-14			0.36														*			
Des Moines, Iowa	2-3			0.55														0.19			
Detroit, Mich.	2-3			0.54														0.11			
Dodge, Kans.	13-14			0.28														0.29			
Dubuque, Iowa	19-20			0.59														0.25			
Duluth, Minn.	16-17			0.80														*			
Eastport, Me.	16-17			1.77														0.08			
Elie, Pa.	15-16			1.32														0.32			
Erie, Pa.	13-14			0.74														*			
Escanaba, Mich.	20-21			0.86														*			
Evansville, Ind.	12-13	8:33 p. m.	12:40 a. m.	0.78	10:00 p. m.	10:30 p. m.	0.03	0.03	0.19	0.32	0.43	0.47	0.51					0.22			
Fort Smith, Ark.	2			0.77														0.19			
Galveston, Tex.	1-2			0.68														0.09			
Grand Haven, Mich.	2-3			0.86														*			
Grand Junction, Colo.	13-14			0.34														*			
Green Bay, Wis.	2-3			0.40														0.23			
Harrisburg, Pa.	21			0.67														*			
Hatteras, N. C.	4-5			1.57														*			
Huron, S. Dak.	19-20			1.01														*			
Indianapolis, Ind.	20-21			0.68														0.32			
Jacksonville, Fla.	3-4	12:35 a. m.	1:30 p. m.	5.72	1:430 a. m.	1:45 a. m.	3.69	0.09	0.19	0.39	0.54	0.71	0.72	0.93	0.94			0.36			
Jupiter, Fla.	12			0.55														*			
Kalispell, Mont.	24			0.66														*			
Kansas City, Mo.	14-15			1.02														*			
Key West, Fla.	11-12	11:00 p. m.	5:00 a. m.	1.12	3:55 a. m.	4:30 a. m.	0.32	0.07	0.28	0.43	0.46	0.51	0.71	0.80				0.27			
Knoxville, Tenn.	20-21			1.02														*			
La Crosse, Wis.	2-3			0.67														0.09			
Lewiston, Idaho	26-27			0.37														*			
Lexington, Ky.	14-16			1.98														*			
Lincoln, Nebr.	20			0.60														0.66			
Little Rock, Ark.	2			1.31														0.26			
Los Angeles, Cal.	16-17			1.36														0.44			
Louisville, Ky.	11-13			1.74														0.44			
Lynchburg, Va.	15-16			0.97														0.24			
Macon, Ga.	4			1.41														0.43			
Memphis, Tenn.	14-15	2:15 a. m.	4:45 p. m.	4.55	2:30 a. m.	3:55 a. m.	1.91	0.08	0.16	0.28	0.41	0.50	0.57	0.64	0.68	0.70	0.79	0.89	1.18		
Meridian, Miss.	15			0.94														0.67			
Milwaukee, Wis.	2-3			1.41														0.09			
Montgomery, Ala.	15-16	4:55 p. m.	9:30 a. m.	3.55	6:00 p. m.	7:00 p. m.	0.10	0.05	0.13	0.19	0.25	0.29	0.29	0.30	0.35	0.72	0.86	1.03	1.10		
Nantucket, Mass.	16-17			1.07														0.21			
Nashville, Tenn.	14-15			3.20														0.46			
New Haven, Conn.	21-22			2.12														0.44			
New Orleans, La.	15	3:38 p. m.	5:55 p. m.	1.32	4:25 p. m.	5:45 p. m.	0.06	0.08	0.12	0.13	0.17	0.26	0.33	0.46	0.55	0.58	0.65	0.97	1.23		
New York, N. Y.	15-16			1.84														0.32			
Norfolk, Va.	16-17			0.68														0.44			
Northfield, Vt.	21-22			1.19														*			
Oklahoma, Okla.	18-15			1.50														0.15			
Omaha, Nebr.	19			0.61														0.46			
Palestine, Tex.	1-2			0.80														0.27			
Parkersburg, W. Va.	15-16			1.19														0.55			
Pensacola, Fla.	15-16			0.81														0.56			
Philadelphia, Pa.	21-22			2.03														*			
Pittsburg, Pa.	12-13			0.72														*			
Pocatello, Idaho	3-4			0.28														*			
Portland, Me.	21-22			1.72														0.37			
Portland, Oreg.	25			0.55														0.23			
Pueblo, Colo.	13-14			0.45														*			
Raleigh, N. C.	12-13			0.89														0.28			
Richmond, Va.	21			1.33														0.26			
Rochester, N. Y.	13-14			1.06														*			
St. Louis, Mo.	12-13			1.37														0.54			
St. Paul, Minn.	20			0.68														0.16			
Salt Lake City, Utah	11-12			0.72														*			
San Antonio, Cal.	1-2			1.41														0.61			
San Diego, Cal.	16-17			1.70														0.65			
Sandusky, Ohio	12-13			0.74														*			
San Francisco, Cal.	9-10			0.74														0.19			
Savannah, Ga.	3-4	4:13 p. m.	10:23 a. m.	2.44	7:45 a. m.	8:34 a. m.	1.04	0.05	0.16	0.25	0.38	0.48	0.61	0.67	0.78	1.10		0.36			
Scranton, Pa.	15-16			1.46														0.18			
Seattle, Wash.	24-25			1.61														0.22			
Shreveport, La.	14-15	8:30 p. m.	4:30 a. m.	1.32	1:35 a. m.	1:55 a. m.	0.30	0.09	0.39	0.48	0.59	0.62	0.64	0.							

TABLE V.—Accumulated amounts of precipitation for each 5 minutes, etc.—Continued.

Stations.	Date.	Total duration.		Total amount of precipita-	Excessive rate.		Amount before excessive begin-	Depths of precipitation (in inches) during periods of time indicated.													
		From—	To—		Began—	Ended—		5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
Taylor, Tex.	1	2	3	4	5	6	7													0.41	
Toledo, Ohio	13			0.40														*			
Topeka, Kan.	14-15			0.58														*			
Valentine, Nebr.	5-6			0.44														*			
Vicksburg, Miss.	15	7:25 a.m.	1:40 p.m.	1.91	7:40 a.m.	8:05 a.m.	T.	0.31	0.78	0.96	1.02	1.08	1.12	1.14							
Washington, D. C.	15-16			1.23														0.42			
Wilmington, N. C.	7			1.70														0.39			
Yankton, S. Dak.	19-20			0.96														*			
Basseterre, St. Kitts	21	12:15 p.m.	4:10 p.m.	0.78	12:15 p.m.	12:46 p.m.	0.00	0.04	0.07	0.17	0.30	0.46	0.59	0.62							
Bridgeport, Barbados	22-23			1.93														0.40			
Havana, Cuba	9			0.22														0.16			
Puerto Principe, Cuba	9-10			1.45														0.44			
San Juan, Porto Rico	19	6:35 p.m.	8:50 p.m.	1.66	7:24 p.m.	8:05 p.m.	0.02	0.16	0.40	0.70	0.83	0.94	1.12	1.30	1.39	1.42	1.46	1.55			
Santiago de Cuba, Cuba	7			0.44														0.44			
Santo Domingo, S. Dom.	10			0.34																	

\*Self-register not working.

† December 3, 1902.

‡ December 4, 1902.

§ December 14, 1902.

|| December 15, 1902.

TABLE VI.—Data furnished by the Canadian Meteorological Service, December, 1902.

Stations.	Pressure, in inches.			Temperature.			Precipitation.			Stations.	Pressure, in inches.			Temperature.			Precipitation.			
	Actual, reduced to mean of 24 hours.	Sea level reduced to mean of 24 hours.	Departure from normal.	Mean.	Departure from normal.	Mean maximum.	Total.	Departure from normal.	Depth of snow.		Actual, reduced to mean of 24 hours.	Sea level reduced to mean of 24 hours.	Departure from normal.	Mean.	Departure from normal.	Mean maximum.	Total.	Departure from normal.	Depth of snow.	
St. Johns, N. F.	In.	In.	In.	○	○	○	In.	In.	In.	Parry Sound, Ont.	In.	In.	In.	○	○	○	In.	In.	In.	
Sydney, C. B. I.	29.61	29.75	-08	28.0	-0.7	34.2	21.9	5.68	+0.65	Port Arthur, Ont.	29.32	30.05	+0.04	18.7	-2.5	27.5	9.9	4.60	+0.12	31.2
Halifax, N. S.	29.88	29.92	+03	28.3	+0.1	33.9	22.6	8.65	+4.02	16.5	29.37	30.12	+1.13	11.7	-1.5	20.8	2.5	0.46	-0.41	4.6
Grand Manan, N. B.	29.92	29.97	+01	27.1	-0.5	34.3	19.9	7.93	+2.81	24.7	29.25	30.14	+1.12	4.5	+0.4	14.1	-5.0	1.50	+0.59	15.0
Yarmouth, N. S.	29.92	29.99	+01	28.0	-2.7	33.4	17.9	7.79	+3.37	38.6	28.21	30.15	+1.13	3.0	-2.7	13.2	7.8	0.72	+0.10	7.2
Charlottetown, P. E. I.	29.90	29.94	+00	23.7	-0.6	29.7	17.7	3.30	+0.24	24.9	27.70	30.08	+0.08	3.3	-4.1	11.7	-5.1	0.84	+0.32	8.4
Chatham, N. B.	29.92	29.95	+01	16.8	-0.2	24.9	8.7	3.82	+0.60	21.0	27.66	30.05	+0.03	11.8	-6.4	22.1	1.6	1.15	+0.80	11.5
Father Point, Que.	29.98	30.01	+06	18.6	-1.8	20.7	6.6	2.58	+0.05	27.8	27.38	30.09	+1.10	9.9	-6.1	18.4	1.4	0.36	+0.42	3.6
Quebec, Que.	29.70	30.04	+03	11.7	-3.5	18.8	4.6	3.18	-0.51	23.2	26.26	29.97	+0.03	12.4	-5.8	21.0	3.8	0.60	+0.01	6.0
Montreal, Que.	29.85	30.07	+04	15.9	-2.4	23.2	8.5	4.34	+0.69	32.4	25.21	30.01	+0.07	18.7	-5.4	21.5	5.8	1.47	+0.26	13.5
Bissett, Ont.	29.46	30.10	+09	9.2	-5.8	21.0	2.6	2.02	-0.47	20.0	27.58	30.00	+0.07	5.8	-7.3	14.7	-3.0	1.05	+0.35	10.5
Ottawa, Ont.	29.79	30.14	+12	14.7	-2.3	22.6	6.8	3.26	+0.35	24.5	28.41	30.06	+0.05	0.1	-2.7	10.7	-10.5	0.11	-0.63	1.1
Kingston, Ont.	29.74	30.08	+04	21.4	-2.3	29.2	13.6	2.77	-0.47	16.5	28.26	30.13	+0.14	-0.7	-6.1	8.4	-9.8	0.46	+0.14	4.6
Toronto, Ont.	29.67	30.07	+02	26.0	-1.0	31.4	17.6	2.22	-0.69	26.0	28.68	29.93	+0.01	25.5	-3.4	31.4	19.6	1.63	+0.84	15.2
White River, Ont.	28.74	30.13	+16	5.4	-4.3	17.8	-7.0	2.58	+0.65	23.6	29.84	29.94	+0.03	41.0	-2.0	44.9	37.1	6.23	-0.75	4.8
Port Stanley, Ont.	29.41	30.07	+00	26.4	-2.0	32.9	19.9	3.75	+1.33	17.1	25.44	29.55	+0.03	18.4	-2.5	25.5	11.2	1.50	-1.67	15.0
Saugeen, Ont.	29.82	30.05	+03	25.8	-0.9	33.2	18.4	1.95	+2.03	15.4	29.95	30.12	+0.00	64.8	+0.1	69.3	60.2	6.96	+2.47	

TABLE VII.—Heights of rivers referred to zeros of gages, December, 1902.

Stations.	Distance to month of river.	Highest water.		Lowest water.		Mean stage.	Monthly range.	Stations.	Distance to month of river.	Highest water.		Lowest water.		Mean stage.	Monthly range.				
		Height.	Date.	Height.	Date.					Height.	Date.	Height.	Date.						
<i>Mississippi River.</i>								<i>Illinois River.</i>	Miles.	Feet.	Feet.	Feet.	Feet.	Feet.	Feet.				
St. Paul, Minn. <sup>6</sup>	1,964	14						Peoria, Ill.	135	14	27-31	11.8	19	12.7	2.3				
Red Wing, Minn. <sup>2</sup>	1,914	14		3.3	1	0.6	15, 16	Confidence, Pa.	59	10	6.9	2.1	10	3.7	4.8				
Reeds Landing, Minn. <sup>1</sup>	1,884	12						West Newton, Pa. <sup>9</sup>	15	23	10.9	1.7	2	4.6	9.2				
La Crosse, Wis. <sup>7</sup>	1,819	12						<i>Toughiglenh River.</i>											
Prairie du Chien, Wis. <sup>3</sup>	1,759	18						Warren, Pa.		177	14	6.9	0.8	3	2.3	6.1			
Dubuque, Iowa <sup>6</sup>	1,699	15	6.8	1	2.8	11-13	5.0	4.0	Oil City, Pa.		123	13	7.5	2.3	6.2				
LeClaire, Iowa <sup>4</sup>	1,609	10	4.6	1	0.2	15, 16	2.0	4.4	Parker, Pa.		73	20	9.0	1.5	7.5				
Davenport, Iowa	1,593	15	6.0	1	1.6	12, 15	3.5	4.4	Freeport, Pa.		29	20	14.7	3.5	11.2				
Muscatine, Iowa	1,562	16	7.6	31	2.6	13, 14, 17	4.5	5.0	<i>Monongahela River.</i>		Weston, W. Va. <sup>10</sup>	161	18	11.0	2.0	9.0			
Galland, Iowa	1,472	8	3.8	1-3	1.3	13, 14, 16, 19	2.6	2.5	Brookville, Pa.		119	25	18.8	2.0	16.8				
Keokuk, Iowa	1,463	15	6.8	1	1.8	14	4.3	5.0	<i>Beaver River.</i>		81	18	21.0	7.7	13.4				
Hannibal, Mo.	1,402	13	8.0	23, 24	2.9	16-19	5.4	5.1	Elwood Junction, Pa. <sup>11</sup>		40	28	27.0	13	29.1				
Grafton, Ill.	1,306	23	10.6	25	6.3	17, 18	8.7	4.3	<i>Great Kanawha River.</i>										
St. Louis, Mo.	1,264	30	14.7	1	8.8	17, 18	12.1	5.9	Johnstown, W. Va.		64	7	7.0	0.9	1.2	3.0	6.1		
Chester, Ill.	1,189	30	11.7	26, 27	x 2	18, 19	10.1	3.5	Red Bank Creek.										
New Madrid, Mo.	1,003	34	81.7	27	15.0	1	24.2	16.7	Brookville, Pa.		35	8	2.7	-0.1	1	1.7	2.8		
Memphis, Tenn.	843	33	30.0	29, 30	8.4	1	20.5	21.6	<i>Beaver River.</i>										
Helena, Ark.	767	42	38.8	30, 31	10.9	2	26.7	27.9	Elwood Junction, Pa. <sup>11</sup>		10	14	7.4	17	2.5	10-12	3.7	4.9	
Arkansas City, Ark.	635	42	40.8	31	18.0	1	29.6	32.8	<i>Great Kanawha River.</i>		58	30	11.5	14	4.0	29	6.8	7.5	
Greenville, Miss.	595	42	35.0	31	14.4	1	24.7	20.6	Charleston, W. Va.										
Vicksburg, Miss.	474	45	37.9	31	13.3	1	25.8	24.6	<i>Little Kanawha River.</i>		108	20	16.2	16	0.6	28	3.9	15.6	
New Orleans, La.	108	16	13.0	30, 31	4.2	1	8.4	8.8	<i>New River.</i>		Hinton, W. Va.	95	14	4.7	18	1.4	30	2.8	9.3
<i>James River.</i>								Cheat River.			Rowlesburg, W. Va. <sup>11</sup>	36	14	8.0	12	2.6	10, 26	4.4	5.4
<i>Missouri River.</i>		</																	

TABLE VII.—Heights of rivers referred to zeros of gages—Continued.

Stations.	Distance to mouth of river.	Danger line on gage.	Highest water.		Lowest water.		Mean stage.	Monthly range.	Stations.	Distance to mouth of river.	Danger line on gage.	Highest water.		Lowest water.		Mean stage.	Monthly range.
			Height.	Date.	Height.	Date.						Height.	Date.	Height.	Date.		
<i>Ohio River—Cont'd.</i>									<i>Housatonic River.</i>								
Point Pleasant, W. Va.	705	39	34.9	17	9.2	2	18.2	25.7	Gaylordsville, Conn.	50	15	Feet. 8.6	23	Feet. 3.4	9	Feet. 5.5	Feet. 5.2
Huntington, W. Va.	680	50	39.8	18	13.3	2,3	22.3	26.5	Susquehanna River.								
Catlettsburg, Ky.	651	50	41.6	18	12.9	2,3	22.4	28.7	Binghamton, N. Y.	306	16	11.7	23	3.4	14	5.3	8.8
Portsmouth, Ohio	612	50	43.3	17	13.5	3	23.7	29.8	Towanda, Pa.	262	16	11.5	23	1.7	11	3.9	9.8
Cincinnati, Ohio	499	50	47.0	18	15.2	1,2	26.9	31.8	Wilkesbarre, Pa.	183	17	18.2	23	5.0	2,3	9.0	13.2
Madison, Ind.	418	46	40.8	19	18.3	2	24.0	27.5	Harrisburg, Pa.	69	17	12.7	24	2.4	1,2	5.5	10.3
Louisville, Ky.	367	28	24.3	19	7.7	2	12.0	16.6	Lock Haven, Pa.	65	12	4.0	23	—0.8	8	1.6	4.8
Evansville, Ind.	184	35	40.0	22	9.3	1	24.9	30.7	Williamsport, Pa.	39	20	10.7	23	1.0	1	4.2	9.7
Paducah, Ky.	47	40	35.4	24	10.2	1	24.2	29.3	Juniata River.								
Cairo, Ill.	1,073	45	39.0	26,27	18.7	1	29.7	30.3	Huntingdon, Pa. <sup>11</sup>	90	24	7.9	22	3.0	1	4.7	4.9
<i>Muskingum River.</i>									Shenandoah River.								
Zanesville, Ohio	70	20	17.2	17	6.5	2	9.8	10.7	Riverton, Va.	58	22	1.9	5	—0.9	31	1.2	2.8
<i>Scioto River.</i>									Potomac River.								
Columbus, Ohio <sup>10</sup>	110	17	10.0	17	2.8	1,2,4,5	4.7	7.2	Cumberland, Md.	290	8	7.5	17	2.6	2	4.8	4.9
<i>Miami River.</i>									Harpers Ferry, W. Va.	172	18	10.8	18	2.5	30,31	5.4	8.3
Dayton, Ohio <sup>6</sup>	77	18	6.7	17	1.9	10,11	3.3	4.8	James River.								
Mount Carmel, Ill.	50	15	17.0	25	6.0	2	11.5	11.0	Lynchburg, Va.	260	18	4.6	18	1.2	31	2.6	3.4
<i>Wabash River.</i>									Richmond, Va.	111	12	6.1	4	0.4	12,29-31	1.8	5.7
Falmouth, Ky.	30	25	28.2	16	2.7	2	8.1	25.5	Roanoke River.								
<i>Kentucky River.</i>									Clarksville, Va.	196	12	11.5	4	2.9	29	4.6	8.6
High Bridge, Ky.	117	17	26.7	16	10.5	3,29	13.9	16.2	Weldon, N. C.	129	30	27.5	5	10.0	30	14.8	17.5
Frankfort, Ky.	65	31	26.0	16	7.0	2,29	10.7	19.0	Cape Fear River.								
<i>Cinch River.</i>									Fayetteville, N. C.	112	38	21.6	4	5.3	30	10.9	16.3
Speers Ferry, Va.	156	20	3.7	17	0.3	11,12,29	0.9	3.4	Edisto River.								
Clinton, Tenn.	52	25	11.5	18	4.8	15	7.3	6.7	Pedee River.	75	6						
<i>Holston River.</i>									Cheraw, S. C.	149	27	25.1	4	3.4	30	10.2	21.7
Rogersville, Tenn.	103	14	3.1	6	1.8	29	2.3	1.3	Black River.								
<i>French Broad River.</i>									Kingstree, S. C.	52	12	8.3	11	2.0	1	6.6	6.3
Leadville, Tenn.	70	15	1.8	4	—0.8	15,20	0.0	2.6	Lynch Creek.								
<i>Tennessee River.</i>									Effingham, S. C.	35	12	6.9	10	3.6	31	5.0	3.3
Knoxville, Tenn.	635	29	3.4	5	1.4	30	2.2	2.0	Santee River.								
Kingston, Tenn.	556	25	6.1	22	2.2	14,15	3.8	3.9	St. Stephens, S. C.	97	12	10.1	13	7.5	1	8.5	2.6
Chattanooga, Tenn.	452	38	9.6	23	3.4	15	6.0	6.2	Congaree River.								
Bridgeport, Ala.	402	24	7.6	23	2.1	15	4.5	5.5	Columbia, S. C.	37	15	11.2	4	0.8	28	3.2	10.4
Florence, Ala.	255	16	7.7	25	2.7	15	5.6	5.0	Waleree River.								
Riverton, Ala.	225	25	10.6	25	3.5	15	7.7	7.1	Camden, S. C.	45	24	23.4	4	6.2	31	12.4	17.2
Johnsonville, Tenn.	95	24	19.9	17,18	0.4	1	11.4	13.5	Waccamaw River.								
<i>Cumberland River.</i>									Conway, S. C.	40	7	5.7	17,18	3.3	1	5.0	2.4
Burnside, Ky.	516	50	34.4	17	4.1	31	11.5	30.3	Savannah River.								
Carthage, Tenn.	305	40	30.7	19	6.0	13	14.5	24.7	Cathoum Falls, S. C.	347	15	6.9	3	3.0	2	3.9	3.9
Nashville, Tenn.	189	40	33.3	21	9.4	14	20.4	23.9	Augusta, Ga.	268	32	21.3	4	8.8	12,29	11.3	12.5
Clarksville, Tenn.	126	42	42.3	17	15.1	13	26.1	27.2	Broad River.								
<i>Arkansas River.</i>									Carlton, Ga.	30	11	6.6	3	2.6	12,28,29	3.4	4.0
Wichita, Kans.	832	10	1.6	22	1.2	5-8	1.4	0.4	Flint River.								
Webbers Falls, Ind. I.	465	23	13.1	17	4.4	13,14	7.0	8.7	Albany, Ga.	80	20	10.4	11	2.2	1	6.5	8.2
Fort Smith, Ark.	403	22	16.3	18	5.6	31	8.8	10.7	Chattohoochee River.								
Dardanelle, Ark.	256	21	16.3	18	6.5	31	10.2	9.8	Westpoint, Ga.	239	20	10.1	17	2.9	15	4.6	7.2
Little Rock, Ark.	176	23	19.2	19	9.4	31	13.4	9.8	Ocmulgee River.								
Newport, Ark.	150	26	24.4	19,20	10.3	13	15.8	14.1	Macon, Ga.	125	18	13.3	3	3.6	17	5.8	9.7
<i>Yazoo River.</i>									Dublin, Ga.	79	30	9.8	8	1.0	31	4.4	8.8
Yazoo City, Miss.	80	25	16.2	31	4.9	1	10.0	11.3	Coosa River.								
<i>Red River.</i>									Rome, Ga.	271	30	6.8	4	1.1	15	3.4	5.7
Arthur City, Tex.	638	27	16.5	16	7.0	31	10.9	9.5	Gadsden, Ga.	144	18	9.9	23	1.6	2,11,14,15	4.7	8.3
Fulton, Ark.	515	28	32.2	1	16.0	31	25.5	16.2	Alabama River.								
Shreveport, La.	327	29	34.1	15,16	21.6	1	30.7	12.5	Montgomery, Ala.	265	35	21.2	19	2.7	15	9.1	18.5
Alexandria, La.	118	33	32.4	25-29	18.8	1	28.5	13.6	Selma, Ala. <sup>13</sup>	212	35	25.6	20	3.8	15	12.0	21.8
<i>Ouachita River.</i>									Tombigbee River.								
Camden, Ark.	304	39	36.2	1	18.6	31	30.3	17.6	Columbia River.								
Monroe, La.	122	40	31.4	31	16.8	1	24.9	14.6	Umatilla, Oreg.	270	25	3.0	12-16	2.1	27	2.6	0.9
<i>Achafalaya River.</i>									The Dalles, Oreg.	166	40	3.0	13	1.2	23,24	2.7	2.7
Melville, La.	100	31	31.4	31	16.3	1	24.8	15.1	Willamette River.								
<i>Penobscot River.</i>									Albany, Oreg.	118	20	24.5	6	5.6	20	11.1	18.9
Matawanie, Me.	87	.....	.....	1,7	0.0	6,9,10	0.5	1.0	Portland, Oreg.	12	15	12.9	11	4.0	23	8.8	8.9
Montague, Me. <sup>2</sup>	60	.....	.....	21	3.0	6	4.7	3.0	Red Bluff, Cal.	265	28	12.4	26	2.5	29-31	9.0	15.5
<i>Kennebec River.</i>									Sacramento, Cal.	64	29	18.1	12	12.6	4-6	15.9	5.5
Solon, Me.	86	.....	1.0	21	3.0	6	0.5	1.0									
Winslow, Me.	46	.....	6.0	21	3.0	6	4.7	3.0									
<i>Merrimac River.</i>																	
Franklin Junction, N. H.	110	.....	.....	.....													
Concord, N. H. <sup>2</sup>	94	.....	4.9	24,25	2.8	30,31	3.7	2.1									
Manchester, N. H.	68	.....	.....	.....													
<i>Connecticut River.</i>																	
Wells River, Vt. <sup>2</sup>	255	.....	.....	.....													
White River Junction, Vt. <sup>13</sup>	209	.....	.....	.....													
Bellows Falls, Vt.	170	12	5.0	23	1.9	7,8	3.1	3.1									
Holyoke, Mass.	84	9	5.2	23,24	0.3	11	8.0	4.9									
Harford, Conn.	50	13	14.7	24	3.6	8	7.6	11.1									

<sup>1</sup> Frozen 9 days.<sup>2</sup> 26 days.<sup>3</sup> 23 days.<sup>4</sup> 11 days.<sup>5</sup> 7 days.<sup>6</sup> 28 days.<sup>7</sup> 21 days.<sup>8</sup> 27 days.<sup>9</sup> 1 day.<sup>10</sup> 3 days.

11.5 days.

12-25 days.

13-20 days.

14 entire month.

15-28 days only.

16-30 days only.

17-30 days only.